

```

Db      181 GGGAAAGCCCCCTAACCTCCTGATCTATACTGCATCCACTTTACAAAGTGGGGTCCCATCA 240
Qy      247 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 306
        |||||
Db      241 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAACCT 300
Qy      307 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCAG 366
        |||||
Db      301 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAACATTTTCCCGCTCACTTTTCGGCGGA 360
Qy      367 GGGACCAAGCTGGAGATCAAAC 388
        |||||
Db      361 GGGACCAAGGTGGAGATCAAAC 382

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RESULT 12

US-10-309-762-111

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; Sequence 111, Application US/10309762
; Publication No. US20040018198A1
; GENERAL INFORMATION:
; APPLICANT: Gudas, Jean
; APPLICANT: Foltz, Ian
; APPLICANT: Handa, Masahisa
; APPLICANT: Gallo, Michael
; TITLE OF INVENTION: ANTIBODIES AGAINST CARBOXYIC ANHYDRASE IX
; TITLE OF INVENTION: (CA IX) TUMOR ANTIGEN
; FILE REFERENCE: ABGENIX.027A
; CURRENT APPLICATION NUMBER: US/10/309,762
; CURRENT FILING DATE: 2002-12-02
; PRIOR APPLICATION NUMBER: 60/337275
; PRIOR FILING DATE: 2001-12-03
; NUMBER OF SEQ ID NOS: 246
; SOFTWARE: FastSEQ for Windows Version 4.0
; SEQ ID NO 111
; LENGTH: 381
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-309-762-111

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Query Match          87.3%; Score 338.8; DB 16; Length 381;
Best Local Similarity 94.8%; Pred. No. 4.6e-97;
Matches 362; Conservative 0; Mismatches 17; Indels 3; Gaps 1;

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Qy      7 ATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 66
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Db      1 ATGAGGGTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCCAGATGC 60
Qy      67 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 126
        |||||
Db      61 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 120
Qy      127 ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA 186
        |||||
Db      121 ATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCA 180
Qy      187 GGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATCA 246
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```

```

Db      181 GGGAAAGCCCCTAAGGTCTGATCTATTCTACATCCAGGTTGCAAAGTGGGGTCCCATCA 240
Qy      247 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCCT 306
        |||
Db      241 AGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGTCTGCAGCCT 300
Qy      307 GAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGCCAG 366
        |||
Db      301 GAAGATTTTGCAACTTACTATTGTCAACAGGCTGACAGTTTCCGG---ACGTTCCGCCAA 357
Qy      367 GGGACCAAGCTGGAGATCAAAC 388
        |||
Db      358 GGGACCAAGGTGGAAATCAAAC 379

```

# RESULT 13

```

US-09-905-243-57
; Sequence 57, Application US/09905243
; Patent No. US20020062009A1
; GENERAL INFORMATION:
; APPLICANT: Taylor, Alexander H
; TITLE OF INVENTION: Monoclonal Antibodies with Reduced
; TITLE OF INVENTION: Immunogenicity
; FILE REFERENCE: P50770
; CURRENT APPLICATION NUMBER: US/09/905,243
; CURRENT FILING DATE: 2001-07-16
; PRIOR APPLICATION NUMBER: 09/300,970
; PRIOR FILING DATE: 1999-04-28
; NUMBER OF SEQ ID NOS: 97
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 57
; LENGTH: 390
; TYPE: DNA
; ORGANISM: Macaca cynomolgus
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (1)...(390)
US-09-905-243-57

```

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Query Match          87.2%; Score 338.4; DB 9; Length 390;
Best Local Similarity 92.0%; Pred. No. 6.2e-97;
Matches 357; Conservative 0; Mismatches 31; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
        |||
Db      1 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGCTCCTAGGTGCC 60
Qy     61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
        |||
Db     61 AGATGTGACATCCAGATGACCCAGTCTCCTTCTTCCTTGTCTGCATCTGTAGGAGACAGA 120
Qy    121 GTCACCATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||
Db    121 GTCACCATCACTTGCCAAGCCAGTCAGGGTATTAGCAACTGGTTAGCCTGGTATCAGCAG 180
Qy    181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
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```

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Db      181 AAACCGGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCACTTTCCAAAGTGGGGTC 240
Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||||
Db      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGAGTTCACTCTCACCATCAGCAGCCTG 300
Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
        |||||
Db      301 CAGCCTGAAGATTTTGCAACTTACTACTGTCAACAGTATAATACTTACCCTCTCACTTTC 360
Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        |||
Db      361 GGCGGAGGGACCAAGGTGGAGATCAAAC 388

```

# RESULT 14

US-10-389-221-10

; Sequence 10, Application US/10389221

; Publication No. US2003021942A1

; GENERAL INFORMATION:

; APPLICANT: Gemini Science, Inc.,

; APPLICANT: Mikayama, Toshifumi

; APPLICANT: Wang, Rongfang

; APPLICANT: Kato, Shinichiro

; APPLICANT: Cheroutre, Hilde

; TITLE OF INVENTION: HUMAN MONOCLONAL ANTIBODIES TO INFLUENZA M2 PROTEIN AND METHODS OF MAKING

; TITLE OF INVENTION: AND USING SAME

; FILE REFERENCE: 021286-0302303

; CURRENT APPLICATION NUMBER: US/10/389,221

; CURRENT FILING DATE: 2003-03-13

; PRIOR APPLICATION NUMBER: 60/364,997

; PRIOR FILING DATE: 2002-03-13

; NUMBER OF SEQ ID NOS: 30

; SOFTWARE: PatentIn version 3.1

; SEQ ID NO 10

; LENGTH: 384

; TYPE: DNA

; ORGANISM: Homo sapiens

US-10-389-221-10

Query Match 86.5%; Score 335.6; DB 15; Length 384;

Best Local Similarity 92.4%; Pred. No. 4.8e-96;

Matches 353; Conservative 0; Mismatches 29; Indels 0; Gaps 0;

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Qy      7 ATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTCCAGATGC 66
        |||||
Db      1 ATGAGGGTCTCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATGT 60
Qy     -67 GACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCACC 126
        |||||
Db      61 GACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCACC 120
Qy     127 ATCACTTGTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACCA 186
        |||||
Db     121 ATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACCA 180

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[illegible]

US-10-469-304-22

; Sequence 22, Application US/10469304

; GENERAL INFORMATION:

; TITLE OF INVENTION: Anti HLA-DR antibody

CURRENT APPLICATION NUMBER:

PRIOR APPLICATION NUMBER: JP2001

NUMBER OF SEQ ID NOS: 147

: SEQ ID NO 22

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/      LENGTH: 420
:      TYPE: DNA

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US-10-469-304-22

Query Match 86.0%; Score 333.6; DB 16; Length 426;

Matches 354; Conservative 0; Mismatches 34; Indels 0; Gaps 0;

Db 34 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTTCTGCTGCTCTGGCTCCCAGGTGCC 93

Db 94 AGATGTGCCATCCAGTTGACCCAGTCTCCATCTCTCCCTGTCTGCATCTGTAGGAGACAGA 153

Db 154 GTCACCATCACTTGCCGGGCAAGTCAGGGCATTAGCAGTGCTTTAGCCTGGTATCAGCAG 213

Db 214 AAACCAGGGGAAAGCTCCTAAACTCCTGATCTATGATGCCTCCAGTTTGGAAAGTGGGGTC 273



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Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      274 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 333

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
        |||||||||||||||||||||||| || |||||||| |||||||||| ||||||
Db      334 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGTTTAATAGTTTCCCGCTCACTTTC 393

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        ||| |||||||| |||||||||
Db      394 GGCGGAGGGACCAAGGTGGAGATCAAAC 421

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Search completed: December 3, 2004, 02:43:19  
Job time : 299.477 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 2019.63 Seconds  
(without alignments)  
7000.593 Million cell updates/sec

Title: US-08-728-463B-206  
Perfect score: 388  
Sequence: 1 ATGGACATGATGGTCCCCGC.....GACCAAGCTGGAGATCAAAC 388

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 32822875 seqs, 18219865908 residues

Total number of hits satisfying chosen parameters: 65645750

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : EST:\*  
1: gb\_est1:\*  
2: gb\_est2:\*  
3: gb\_htc:\*  
4: gb\_est3:\*  
5: gb\_est4:\*  
6: gb\_est5:\*  
7: gb\_est6:\*  
8: gb\_gss1:\*  
9: gb\_gss2:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,

and is derived by analysis of the total score distribution.

# SUMMARIES

Result No.	Score	%		DB	ID	Description
		Query	Match Length			
1	378.4	97.5	943	2	BF976230	BF976230 602245105
2	367.2	94.6	1100	2	BF663472	BF663472 602144635
3	365.6	94.2	606	6	CD690290	CD690290 EST6813 h
4	364	93.8	755	4	BG533970	BG533970 602553071
5	362.4	93.4	472	6	CD702614	CD702614 EST19139
6	357.6	92.2	497	6	CD696718	CD696718 EST13241
7	357.6	92.2	558	6	CD690030	CD690030 EST6553 h
8	357.6	92.2	605	6	CD688415	CD688415 EST4937 h
9	355.2	91.5	851	4	BG686018	BG686018 602638582
10	355.2	91.5	894	4	BG341803	BG341803 602463535
11	352.4	90.8	421	6	CD690477	CD690477 EST7000 h
12	350.8	90.4	912	2	BF129120	BF129120 601811580
13	349.6	90.1	510	6	CD694557	CD694557 EST11080
14	346.4	89.3	459	6	CD695600	CD695600 EST12123
15	344.8	88.9	484	6	CD696042	CD696042 EST12565
16	344.2	88.7	903	5	BQ706785	BQ706785 AGENCOURT
17	343.4	88.5	561	6	CD706288	CD706288 EST22815
18	343.2	88.5	487	2	AW405988	AW405988 UI-HF-BL0
19	343.2	88.5	724	4	BI837410	BI837410 603086702
20	343.2	88.5	759	6	CB984469	CB984469 AGENCOURT
21	343.2	88.5	886	4	BG756818	BG756818 602710291
22	342.2	88.2	818	3	CR597684	CR597684 full-leng
23	341.6	88.0	769	6	CB957759	CB957759 AGENCOURT
24	341.4	88.0	710	6	CD695065	CD695065 EST11588
25	340.8	87.8	906	4	BG756264	BG756264 602713576
26	338.8	87.3	1112	4	BM924778	BM924778 AGENCOURT
27	338.4	87.2	433	2	AW951891	AW951891 EST363961
28	338.4	87.2	545	6	CD697196	CD697196 EST13719
29	338.4	87.2	611	6	CD702728	CD702728 EST19253
30	338.4	87.2	629	6	CD697149	CD697149 EST13672
31	338.4	87.2	830	4	BG535683	BG535683 602563394
32	337.6	87.0	486	6	CD683960	CD683960 EST480 hu
33	337.4	87.0	630	6	CD694356	CD694356 EST10879
34	337.4	87.0	689	6	CB055233	CB055233 NISC_gm08
35	337	86.9	947	6	CB987663	CB987663 AGENCOURT
36	336.8	86.8	560	4	BM823497	BM823497 K-EST0094
37	336.8	86.8	741	6	CB958688	CB958688 AGENCOURT
38	335.4	86.4	594	4	BI001311	BI001311 MR2-HN006
39	335.2	86.4	610	6	CD691065	CD691065 EST7588 h
40	335.2	86.4	631	5	BX646383	BX646383 DKFZp781G
41	335.2	86.4	677	6	CD692170	CD692170 EST8709 h
42	333.8	86.0	726	6	CB986484	CB986484 AGENCOURT
43	333.6	86.0	504	6	CD696759	CD696759 EST13282
44	333.6	86.0	624	6	CD690145	CD690145 EST6668 h
45	332	85.6	447	2	AW405752	AW405752 UI-HF-BL0

# ALIGNMENTS

## RESULT 1

BF976230

LOCUS BF976230 943 bp mRNA linear EST 22-JAN-2001

DEFINITION 602245105F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4336225 5', mRNA sequence.

ACCESSION BF976230

VERSION BF976230.1 GI:12343445

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 943)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1208 row: j column: 02

High quality sequence stop: 721.

## FEATURES

source

Location/Qualifiers

1..943

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4336225"

/tissue\_type="primary B-cells from tonsils (cell line)"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_48"

/note="Organ: B-cells; Vector: pOTB7; Site\_1: XhoI;

Site\_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the

following 5' adaptor: GGCACGAG(G). Size-selected &gt;500bp

for average insert size 1.8kb. Library constructed by Ling

Hong in the laboratory of Gerald M. Rubin (University of

California, Berkeley) using ZAP-cDNA synthesis kit

(Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH\_MGC Library."

## ORIGIN

Query Match 97.5%; Score 378.4; DB 2; Length 943;

Best Local Similarity 98.5%; Pred. No. 4.5e-105;

Matches 382; Conservative 0; Mismatches 6; Indels 0; Gaps 0;

Qy 1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 60

|||||

Db 18 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 77

Qy 61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120

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Db      78 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 137
Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||
Db      138 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 197
Qy      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||
Db      198 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 257
Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||
Db      258 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 317
Qy      301 CAGCCTGAAGATTTTGTCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Db      318 CAGCCTGAAGATTTTGTCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCACACTTTT 377
Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        |||
Db      378 GGCCAGGGGACCAAGCTGGAGATCAAAC 405

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## RESULT 2

BF663472

LOCUS BF663472 1100 bp mRNA linear EST 21-DEC-2000

DEFINITION 602144635F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4297736 5',  
mRNA sequence.

ACCESSION BF663472

VERSION BF663472.1 GI:11937367

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1100)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be  
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1152 row: f column: 09

High quality sequence stop: 704.

## FEATURES

source

Location/Qualifiers

1. .1100

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4297736"

/tissue\_type="primary B-cells from tonsils (cell line)"

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/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_48"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling
Hong in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

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# ORIGIN

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Query Match          94.6%;  Score 367.2;  DB 2;  Length 1100;
Best Local Similarity 96.6%;  Pred. No. 1.3e-101;
Matches 375;  Conservative 0;  Mismatches 13;  Indels 0;  Gaps 0;

Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
      |||
Db      8 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 67

Qy     61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db     68 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 127

Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db    128 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 187

Qy    181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db    188 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTC 247

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db    248 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 307

Qy    301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db    308 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 367

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db    368 GGCGGAGGGACCAAGGTGGAGATCAAAC 395

```

## RESULT 3

```

CD690290
LOCUS      CD690290          606 bp    mRNA    linear    EST 25-JUN-2003
DEFINITION EST6813 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD690290
VERSION    CD690290.1  GI:32210896
KEYWORDS   EST.
SOURCE     Homo sapiens (human)
ORGANISM   Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
            Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

```

REFERENCE 1 (bases 1 to 606)  
AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.  
TITLE Transcriptional Gene Expression Profile of Human Nasopharynx  
JOURNAL Unpublished (2003)  
COMMENT Contact: YiXin Zeng  
Cancer Center  
Sun Yat-sen University  
651 DongFeng Road East, GuangZhou 510060, China  
Tel: 86-1380-9770-743  
Fax: 86-20-8775-4506  
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers  
source 1. .606  
/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/tissue\_type="normal nasopharynx"  
/clone\_lib="human nasopharynx"  
/note="ESTs generated from a normal nasopharynx cDNA library from southern Chinese"

# ORIGIN

Query Match 94.2%; Score 365.6; DB 6; Length 606;  
Best Local Similarity 96.4%; Pred. No. 3.5e-101;  
Matches 374; Conservative 0; Mismatches 14; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
      |||
Db      68 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 127

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      128 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTAGGAGACAGA 187

Qy      121 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      188 GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 247

Qy      181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      248 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 307

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      308 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTG 367

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      368 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGCCACTTTC 427

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db      428 GGCGGAGGGACCAAGGTGGAGATCAAAC 455

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RESULT 4

BG533970  
 LOCUS BG533970 755 bp mRNA linear EST 03-APR-2001  
 DEFINITION 602553071F1 NIH\_MGC\_77 Homo sapiens cDNA clone IMAGE:4663096 5',  
 mRNA sequence.  
 ACCESSION BG533970  
 VERSION BG533970.1 GI:13525510  
 KEYWORDS EST.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 755)  
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.  
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)  
 JOURNAL Unpublished (1999)  
 COMMENT Contact: Robert Strausberg, Ph.D.  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Tissue Procurement: CLONTECH Laboratories, Inc.  
 cDNA Library Preparation: CLONTECH Laboratories, Inc.  
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
 DNA Sequencing by: Incyte Genomics, Inc.  
 Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:  
<http://image.llnl.gov>  
 Plate: LLCM1464 row: m column: 17  
 High quality sequence stop: 726.

FEATURES Location/Qualifiers  
 source 1..755  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="IMAGE:4663096"  
 /lab\_host="DH10B (T1 phage-resistant)"  
 /clone\_lib="NIH\_MGC\_77"  
 /note="Organ: lung; Vector: pDNR-LIB (Clontech); Site\_1:  
 SfiI (ggccgcctcggcc); Site\_2: SfiI (ggccattatggcc); 5' and  
 3' adaptors were used in cloning as follows: 5' adaptor  
 sequence: 5'-CACGGCCATTATGGCC-3' and 3' adaptor sequence:  
 5'-ATTCTAGAGGCCGAGGCCGACATG-dT(30)BN-3' (where B = A,  
 C, or G and N = A, C, G, or T). Average insert size 1.9  
 kb (range 0.5-4.0 kb). 12/15 colonies contained inserts  
 by PCR. This library was enriched for full-length clones  
 and was constructed by Clontech Laboratories (Palo Alto,  
 CA). Note: this is a NIH\_MGC Library."

#### ORIGIN

Query Match 93.8%; Score 364; DB 4; Length 755;  
 Best Local Similarity 96.1%; Pred. No. 1.1e-100;  
 Matches 373; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

Qy 1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60  
 |||||  
 Db 28 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 87  
 Qy 61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120  
 |||||  
 Db 88 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACGGA 147

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Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
          |||
Db      148 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATCAGCAGCTGGTTAGCCTGGTATCAGCAG 207

Qy      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
          |||
Db      208 AAAGCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 267

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
          |||
Db      268 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 327

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
          |||
Db      328 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGGTAACAGTTTCCCTTTCACTTTT 387

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
          |||
Db      388 GGCGGAGGGACCAAGGTGGAGATCAAAC 415

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# RESULT 5

CD702614

LOCUS CD702614 472 bp mRNA linear EST 25-JUN-2003

DEFINITION EST19139 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD702614

VERSION CD702614.1 GI:32233244

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 472)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

## FEATURES

source

Location/Qualifiers

1..472

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/tissue\_type="normal nasopharynx"

/clone\_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA

library from southern Chinese"

## ORIGIN

Query Match

93.4%; Score 362.4; DB 6; Length 472;



Best Local Similarity 95.9%; Pred. No. 3.1e-100;  
Matches 372; Conservative 0; Mismatches 16; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGGTTCC 60
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Db      52 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCACAGGTTCC 111

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
        |||
Db     112 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGC 171

Qy     121 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
        |||
Db     172 GTCACCATCACTTGTTCGGGCGAGTCAGGCTATTAGCACCTGGTTAGCCTGGTATCAGCAG 231

Qy     181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||
Db     232 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATACTGCATCCAGTTTGCAAAGTGGGGTC 291

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||
Db     292 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 351

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
        |||
Db     352 CAGCCTGAAGATTTTGCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 411

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
        |||
Db     412 GGCGGAGGGACCAAGGTGGAGATCAAAC 439
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#### RESULT 6

CD696718

LOCUS CD696718 497 bp mRNA linear EST 25-JUN-2003

DEFINITION EST13241 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD696718

VERSION CD696718.1 GI:32223477

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 497)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers

source 1..497

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/tissue_type="normal nasopharynx"
/clone_lib="human nasopharynx"
/note="ESTs generated from a normal nasopharynx cDNA
library from southern Chinese"

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# ORIGIN

Query Match 92.2%; Score 357.6; DB 6; Length 497;  
Best Local Similarity 95.1%; Pred. No. 9.5e-99;  
Matches 369; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
      ||||| || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db      47 ATGGACAGGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 106

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     107 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGGGTCTGCTTCTGTAGGAGACAGA 166

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     167 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAG 226

Qy     181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     227 AAACCAGGGAAAGCCCCTAAGCTCCTCGTCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 286

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     287 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 346

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db     347 CAGCCTGAAGATTTTGCAACTTACTATGGTCAACAGGCTAACAGTTTCCCTTTCACTTTC 406

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||| ||||| |||| |||||
Db     407 GGCCCTGGGACCAAAGTGGATATCAAAC 434

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## RESULT 7

CD690030

LOCUS CD690030 558 bp mRNA linear EST 25-JUN-2003

DEFINITION EST6553 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD690030

VERSION CD690030.1 GI:32210387

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 558)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)  
COMMENT Contact: YiXin Zeng  
Cancer Center  
Sun Yat-sen University  
651 DongFeng Road East, GuangZhou 510060, China  
Tel: 86-1380-9770-743  
Fax: 86-20-8775-4506  
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers  
source 1..558  
/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/tissue\_type="normal nasopharynx"  
/clone\_lib="human nasopharynx"  
/note="ESTs generated from a normal nasopharynx cdna  
library from southern Chinese"

#### ORIGIN

Query Match 92.2%; Score 357.6; DB 6; Length 558;  
Best Local Similarity 95.1%; Pred. No. 9.9e-99;  
Matches 369; Conservative 0; Mismatches 19; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 60
      |||
Db      50 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCC 109

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db     110 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 169

Qy     121 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db     170 GTCACCATCACTTGTTCGGGCGAGTCAGGATATTAGCACCTGGTTAGCCTGGTATCAGCAG 229

Qy     181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db     230 AAACCAGGGAAAGCCCCCTAAACTCCTGATCTATGCTGCATCCAATTTGCTAAGTGGGGTC 289

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db     290 CCATCAAGATTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAACAGCCTG 349

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db     350 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCGGACGTTC 409

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db     410 GGCCAAGGGACCAAGGTGGAAATCAAAC 437
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#### RESULT 8

CD688415

LOCUS CD688415 605 bp mRNA linear EST 25-JUN-2003  
DEFINITION EST4937 human nasopharynx Homo sapiens cdna, mRNA sequence..  
ACCESSION CD688415



Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388  
 ||| ||||| ||||| ||||| |||||  
 Db 407 GGCGGAGGGACCAAGGTGGAGATCAAAC 434

# RESULT 9

BG686018

LOCUS BG686018 851 bp mRNA linear EST 01-MAY-2001

DEFINITION 602638582F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4766157.5',  
 mRNA sequence.

ACCESSION BG686018

VERSION BG686018.1 GI:13917415

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 851)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1626 row: c column: 22

High quality sequence stop: 851.

## FEATURES

source

Location/Qualifiers

1..851

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4766157"

/tissue\_type="primary B-cells from tonsils (cell line)"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_48"

/note="Organ: B-cells; Vector: pOTB7; Site\_1: XhoI;

Site\_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the  
 following 5' adaptor: GGCACGAG(G). Size-selected >500bp  
 for average insert size 1.8kb. Library constructed by Ling  
 Hong in the laboratory of Gerald M. Rubin (University of  
 California, Berkeley) using ZAP-cDNA synthesis kit  
 (Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH\_MGC Library."

## ORIGIN

Query Match 91.5%; Score 355.2; DB 4; Length 851;

Best Local Similarity 96.4%; Pred. No. 6.1e-98;

Matches 374; Conservative 0; Mismatches 13; Indels 1; Gaps 1;

Qy 1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60

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      |||
Db      8 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 67

QY      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||

Db      68 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 127

QY      121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||

Db      128 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 187

QY      181 AAACCAGGGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||

Db      188 AAACCA-GGAAAGCCCCCTAAGCTCCTGATCTATGCTTCATCCAGTTTGCAAAGTGGGGTC 246

QY      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||

Db      247 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 306

QY      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||

Db      307 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCTCTCACTTTC 366

QY      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
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Db      367 GGCGGAGGGACCAAGGTGGAGATCAAAC 394

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# RESULT 10

BG341803

LOCUS BG341803 894 bp mRNA linear EST 27-FEB-2001

DEFINITION 602463535F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4576136 5', mRNA sequence.

ACCESSION BG341803

VERSION BG341803.1 GI:13148241

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 894)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1288 row: f column: 09

High quality sequence stop: 636.

## FEATURES

source

Location/Qualifiers

1..894

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/organism="Homo sapiens"
/mol_type="mRNA"
/db_xref="taxon:9606"
/clone="IMAGE:4576136"
/tissue_type="primary B-cells from tonsils (cell line)"
/lab_host="DH10B (phage-resistant)"
/clone_lib="NIH_MGC_48"
/note="Organ: B-cells; Vector: pOTB7; Site_1: XhoI;
Site_2: EcoRI; cDNA made by oligo-dT priming.
Directionally cloned into EcoRI/XhoI sites using the
following 5' adaptor: GGCACGAG(G). Size-selected >500bp
for average insert size 1.8kb. Library constructed by Ling
Hong in the laboratory of Gerald M. Rubin (University of
California, Berkeley) using ZAP-cDNA synthesis kit
(Stratagene) and Superscript II RT (Life Technologies).
Note: this is a NIH_MGC Library."

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# ORIGIN

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Query Match          91.5%;   Score 355.2;   DB 4;   Length 894;
Best Local Similarity 96.4%;   Pred. No. 6.2e-98;
Matches 374;   Conservative 0;   Mismatches 13;   Indels 1;   Gaps 1;

Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      13 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 72

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      73 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 132

Qy      121 GTCACCATCACTTGTGCGGGCAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      133 GTCACCATCACTTGTGCGGGCAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 192

Qy      181 AAACCAGGGAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      193 AAACCA-GGAAAGCCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 251

Qy      241 CCATCAAGGTTGAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      252 CCATCAAGGTTGAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 311

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      312 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTCACAGTTTCCCATTCACTTTC 371

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db      372 GGCCCTGGGACCAAGTGGATATCAAAC 399

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## RESULT 11

```

CD690477
LOCUS      CD690477          421 bp    mRNA    linear    EST 25-JUN-2003
DEFINITION EST7000 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD690477
VERSION    CD690477.1  GI:32211261

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KEYWORDS EST.  
SOURCE Homo sapiens (human)  
ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
REFERENCE 1 (bases 1 to 421)  
AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
Zeng,Y.-X.  
TITLE Transcriptional Gene Expression Profile of Human Nasopharynx  
JOURNAL Unpublished (2003)  
COMMENT Contact: YiXin Zeng  
Cancer Center  
Sun Yat-sen University  
651 DongFeng Road East, GuangZhou 510060, China  
Tel: 86-1380-9770-743  
Fax: 86-20-8775-4506  
Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers  
source 1..421  
/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/tissue\_type="normal nasopharynx"  
/clone\_lib="human nasopharynx"  
/note="ESTs generated from a normal nasopharynx cDNA  
library from southern Chinese"

# ORIGIN

Query Match 90.8%; Score 352.4; DB 6; Length 421;  
Best Local Similarity 94.6%; Pred. No. 3.6e-97;  
Matches 365; Conservative 0; Mismatches 21; Indels 0; Gaps 0;

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Qy      1 ATGGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 60
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Db      36 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 95

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      96 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCTGTGTCTGCATCTGTGGGAGACAGA 155

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db     156 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCTG 215

Qy     181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db     216 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATACTGCATCCAGTTTGCAAAGTGGGGTC 275

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db     276 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACTATCAGCAGCCTG 335

Qy     301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
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Qy     361 GGCCAGGGGACCAAGCTGGAGATCAA 386

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Db

396 GGCGGCGGGACCAAGGTGGAGATCAA 421

RESULT 12

BF129120

LOCUS BF129120 912 bp mRNA linear EST 24-OCT-2000

DEFINITION 601811580F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4054530 5', mRNA sequence.

ACCESSION BF129120

VERSION BF129120.1 GI:10968160

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 912)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM894 row: p column: 19

High quality sequence stop: 695.

FEATURES

source

Location/Qualifiers

1..912

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4054530"

/tissue\_type="primary B-cells from tonsils (cell line)"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_48"

/note="Organ: B-cells; Vector: pOTB7; Site\_1: XhoI;

Site\_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp

for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of

California, Berkeley) using ZAP-cDNA synthesis kit

(Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH\_MGC Library."

ORIGIN

Query Match 90.4%; Score 350.8; DB 2; Length 912;

Best Local Similarity 94.3%; Pred. No. 1.4e-96;

Matches 364; Conservative 0; Mismatches 22; Indels 0; Gaps 0;

QY 3 GGACATGATGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCCAG 62

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Db 1 GGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTCTAG 60

Qy 63 ATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGT 122  
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Db 61 ATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCCGTAGGAGACAGAGT 120

Qy 123 CACCATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAA 182  
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Db 121 CACCATCACTTGTCTGGGCGAGTCAGGATATTAGTAGTTGGTTAGCCTGGTATCAGCAGAA 180

Qy 183 ACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCC 242  
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Db 181 ACCAGGGAAAGCCCCTAAACTCCTGATCTATGCTGCATCCAGTTTACAAAGTGGGGTCCC 240

Qy 243 ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCA 302  
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Db 241 ATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACA 300

Qy 303 GCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGG 362  
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Db 301 GCCTGAAGATTTTGCAACTTACCATTGTCTACAGACTAACAGTTTCCCATTCACTTTTCGG 360

Qy 363 CCAGGGGACCAAGCTGGAGATCAAAC 388  
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Db 361 CCCTGGGACCAAAGTGGATATCAAGC 386

# RESULT 13

CD694557

LOCUS CD694557 510 bp mRNA linear EST 25-JUN-2003

DEFINITION EST11080 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD694557

VERSION CD694557.1 GI:32219318

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 510)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

Tel: 86-1380-9770-743

Fax: 86-20-8775-4506

Email: yxzeng@gzsums.edu.cn.

FEATURES Location/Qualifiers

source 1..510

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/tissue\_type="normal nasopharynx"

/clone\_lib="human nasopharynx"

/note="ESTs generated from a normal nasopharynx cDNA  
library from southern Chinese"

ORIGIN

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Query Match          90.1%;  Score 349.6;  DB 6;  Length 510;
Best Local Similarity 93.8%;  Pred. No. 2.8e-96;
Matches 364;  Conservative 0;  Mismatches 24;  Indels 0;  Gaps 0;

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Db      61 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTCC 120

Qy      61 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      121 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCTTCTGTGGGAGACAGC 180

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCAT 180
      |||
Db      181 GTCACCATCACTTGTCTGGGCGAGTCAAGGCTATTGGCAGCTGGTTAGCCTGGTATCAGCAG 240

Qy      181 AAACCAGGGAAAGCCCCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      241 AAACCAGGGAAAGCCCCTAAGTTCTGATCTATGCTGCATCCATTTTGCAAAGTGGGGTC 300

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      301 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGCTTTCACTCTCACCATCAGCAGCCTG 360

Qy      301 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTT 360
      |||
Db      361 CAGCCTGAAGATTTGGCAACTTACCATTGTCAACAGGCTAACAGTTTCCCTATCACCTTC 420

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAAC 388
      |||
Db      421 GGCCAAGGGACACGACTGGAGATTAAAC 448
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RESULT 14

CD695600

LOCUS CD695600 459 bp mRNA linear EST 25-JUN-2003

DEFINITION EST12123 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD695600

VERSION CD695600.1 GI:32221299

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 459)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University

651 DongFeng Road East, GuangZhou 510060, China

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FEATURES                      Location/Qualifiers
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                               /db_xref="taxon:9606"
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Query Match 89.3%; Score 346.4; DB 6; Length 459;  
Best Local Similarity 93.3%; Pred. No. 2.6e-95;  
Matches 362; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

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RESULT 15
CD696042
LOCUS      CD696042      484 bp      mRNA      linear      EST 25-JUN-2003
DEFINITION EST12565 human nasopharynx Homo sapiens cDNA, mRNA sequence.
ACCESSION  CD696042
VERSION    CD696042.1  GI:32222175
KEYWORDS   EST.
SOURCE     Homo sapiens (human)
  ORGANISM Homo sapiens
            Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;

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	Mammalia; Primates; Catarrhini; Hominidae; Homo.
REFERENCE	1 (bases 1 to 484)
AUTHORS	Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and Zeng,Y.-X.
TITLE	Transcriptional Gene Expression Profile of Human Nasopharynx
JOURNAL	Unpublished (2003)
COMMENT	Contact: YiXin Zeng Cancer Center Sun Yat-sen University 651 DongFeng Road East, GuangZhou 510060, China Tel: 86-1380-9770-743 Fax: 86-20-8775-4506 Email: yxzeng@gzsums.edu.cn.
FEATURES	Location/Qualifiers
source	1. .484 /organism="Homo sapiens" /mol_type="mRNA" /db_xref="taxon:9606" /tissue_type="normal nasopharynx" /clone_lib="human nasopharynx" /note="ESTs generated from a normal nasopharynx cDNA library from southern Chinese"
ORIGIN	

Search completed: December 2, 2004, 20:56:28  
Job time : 2022.63 secs

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 2471.59 Seconds  
 (without alignments)  
 8839.572 Million cell updates/sec

Title: US-08-728-463B-207  
 Perfect score: 462  
 Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 4526729 seqs, 23644849745 residues

Total number of hits satisfying chosen parameters: 9053458

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : GenEmbl:\*  
 1: gb\_ba:\*  
 2: gb\_htg:\*  
 3: gb\_in:\*  
 4: gb\_om:\*  
 5: gb\_ov:\*  
 6: gb\_pat:\*  
 7: gb\_ph:\*  
 8: gb\_pl:\*  
 9: gb\_pr:\*  
 10: gb\_ro:\*  
 11: gb\_sts:\*  
 12: gb\_sy:\*  
 13: gb\_un:\*  
 14: gb\_vi:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

# SUMMARIES

		%					Description
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No.	Score						
1	462	100.0	462	6	AR161376	AR161376	Sequence
2	462	100.0	462	6	AR369969	AR369969	Sequence
3	462	100.0	462	6	BD096603	BD096603	Transgeni

4	390.4	84.5	489	9	AF348833	AF348833 Homo sapi
5	390.4	84.5	490	9	AF348830	AF348830 Homo sapi
6	390.4	84.5	490	9	AF348831	AF348831 Homo sapi
7	384	83.1	488	9	AF348834	AF348834 Homo sapi
8	382.4	82.8	488	9	AF348829	AF348829 Homo sapi
9	382.4	82.8	490	9	AF348832	AF348832 Homo sapi
10	380.8	82.4	408	9	HSVHID7	Z47219 H.sapiens m
11	377	81.6	438	6	BD015542	BD015542 Human mon
12	377	81.6	438	6	BD094920	BD094920 Human mon
13	368	79.7	489	9	AF348835	AF348835 Homo sapi
14	366.8	79.4	440	9	AF052379	AF052379 Homo sapi
15	366.4	79.3	501	9	AY393096	AY393096 Homo sapi
16	363.2	78.6	489	9	AF348828	AF348828 Homo sapi
17	361.6	78.3	486	9	AY393198	AY393198 Homo sapi
18	360	77.9	426	9	AF062214	AF062214 Homo sapi
19	358.6	77.6	489	9	AF397316	AF397316 Callithri
20	357.4	77.4	423	9	AY190828	AY190828 Homo sapi
21	356.8	77.2	492	9	AY393204	AY393204 Homo sapi
22	355.6	77.0	498	9	AY393196	AY393196 Homo sapi
23	355	76.8	429	9	HSIGHXX31	X65913 H.sapiens m
24	352.8	76.4	513	9	AY393084	AY393084 Homo sapi
25	352.8	76.4	513	9	AY393087	AY393087 Homo sapi
26	352.8	76.4	513	9	AY393097	AY393097 Homo sapi
27	351.8	76.1	489	9	AY393188	AY393188 Homo sapi
28	351.2	76.0	417	9	AF416364	AF416364 Papio cyn
29	350.8	75.9	880	9	HSIGVH006	X58402 Human CB-4
30	350.8	75.9	937	9	HSIGVH004	X58400 Human EBV-2
31	350.8	75.9	949	9	HSIGVH005	X58401 Human L2-9
32	350.8	75.9	967	9	HSIGVH001	X58397 Human CLL-1
33	349.8	75.7	429	9	AY392964	AY392964 Homo sapi
34	349.6	75.7	414	9	AF062154	AF062154 Homo sapi
35	349.6	75.7	513	9	AY393088	AY393088 Homo sapi
36	349	75.5	495	9	AF397359	AF397359 Callithri
37	347	75.1	489	9	AY393189	AY393189 Homo sapi
38	347	75.1	498	9	AY393085	AY393085 Homo sapi
39	346.4	75.0	513	9	AY393094	AY393094 Homo sapi
40	346.2	74.9	501	9	AY393194	AY393194 Homo sapi
41	346.2	74.9	501	9	AY393201	AY393201 Homo sapi
42	345.6	74.8	500	9	AF397348	AF397348 Callithri
43	345.4	74.8	411	9	HSIGHXX32	X65914 H.sapiens m
44	345.4	74.8	411	9	HSIGHXX33	X65915 H.sapiens m
45	345.4	74.8	489	9	AY393192	AY393192 Homo sapi

#### ALIGNMENTS

#### RESULT 1

AR161376

LOCUS AR161376 462 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 359 from patent US 6255458.

ACCESSION AR161376

VERSION AR161376.1 GI:16227236

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.



REFERENCE 1 (bases 1 to 462)  
 AUTHORS Lonberg,N. and Kay,R.M.  
 TITLE High affinity human antibodies and human antibodies against digoxin  
 JOURNAL Patent: US 6255458-A 359 03-JUL-2001;  
 FEATURES Location/Qualifiers  
     source 1..462  
             /organism="unknown"  
             /mol\_type="unassigned DNA"

# ORIGIN

Query Match 100.0%; Score 462; DB 6; Length 462;  
 Best Local Similarity 100.0%; Pred. No. 9.1e-101;  
 Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Qy    361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
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Db    361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy    421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
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Db    421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

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## RESULT 2

AR369969

LOCUS AR369969 462 bp DNA linear PAT 12-SEP-2003

DEFINITION Sequence 207 from patent US 6300129.

ACCESSION AR369969

VERSION AR369969.1 GI:34606409

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 462)  
AUTHORS Lonberg,N. and Kay,R.M.  
TITLE Transgenic non-human animals for producing heterologous antibodies  
JOURNAL Patent: US 6300129-A 207 09-OCT-2001;  
FEATURES Location/Qualifiers  
source 1..462  
/organism="unknown"  
/mol\_type="genomic DNA"

# ORIGIN

Query Match 100.0%; Score 462; DB 6; Length 462;  
Best Local Similarity 100.0%; Pred. No. 9.1e-101;  
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
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Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
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Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462  
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RESULT 3  
BD096603  
LOCUS BD096603 462 bp DNA linear PAT 27-AUG-2002  
DEFINITION Transgenic non-human animals capable of producing heterologous antibodies.  
ACCESSION BD096603  
VERSION BD096603.1 GI:22642191  
KEYWORDS JP 2001527386-A/130.  
SOURCE unidentified  
ORGANISM unidentified

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REFERENCE      unclassified.
REFERENCE      1 (bases 1 to 462)
AUTHORS       Lonberg,N. and Kay,R.M.
TITLE         Transgenic non-human animals capable of producing heterologous
               antibodies
JOURNAL       Patent: JP 2001527386-A 130 25-DEC-2001;
               GENPHARM INTERNATIONAL
COMMENT       OS   Unidentified
               PN   JP 2001527386-A/130
               PD   25-DEC-2001
               PF   01-DEC-1997 JP 1998525687
               PR   02-DEC-1996 US      08/758417
               PI   NILS LONBERG,ROBERT M KAY
               PC   C12N5/00,C12N5/28,C12N5/24,C12N5/10,C07K16/00,A61K39/00 CC
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               CC   Topology: Linear;
               CC   Transgenic non-human animals capable of
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               CC   antibodies
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FEATURES             Location/Qualifiers
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Best Local Similarity 100.0%; Pred. No. 9.1e-101;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    181 GGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGGCTACCTG 300
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Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGGCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

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Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420  
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 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462  
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 Db 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

RESULT 4

AF348833

LOCUS AF348833 489 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-23 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348833

VERSION AF348833.1 GI:13487746

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 489)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 489)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

source

1..489

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/chromosome="14"

/clone="26P-23"

/cell\_type="peripheral B cell; plasmablast"

/note="from a patient with systemic lupus erythematosus"

CDS

1..>489

/note="VH 5-51"

/codon\_start=1

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 GGT"

ORIGIN

Query Match 84.5%; Score 390.4; DB 9; Length 489;  
 Best Local Similarity 91.3%; Pred. No. 1.6e-83;  
 Matches 431; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGGTGTTCTCCAAGGAGTCTGTGCCGAG 60  
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 Db 421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

# RESULT 5

AF348830

LOCUS AF348830 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-3; 26P-26 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348830

VERSION AF348830.1 GI:13487740

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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            /note="VH 5-51"
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# ORIGIN

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Query Match      84.5%;   Score 390.4;   DB 9;   Length 490;
Best Local Similarity  91.3%;   Pred. No. 1.6e-83;
Matches 431;   Conservative    0;   Mismatches 26;   Indels 15;   Gaps 1;

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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

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Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db    301 CAGTGGAGCAGCCTGCAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360

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Db    361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCCCTGGTCACCGTCTCC 420

Qy    406 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

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RESULT 6

AF348831

LOCUS AF348831 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-16 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348831

VERSION AF348831.1 GI:13487742

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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GGT"

ORIGIN

Query Match 84.5%; Score 390.4; DB 9; Length 490;

Best Local Similarity 91.3%; Pred. No. 1.6e-83;

Matches 431; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

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Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGGTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

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Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

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Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360
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Qy      361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
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Db      361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCCCTGGTCACCGCCTCC 420
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Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

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#### RESULT 7

AF348834

LOCUS AF348834 488 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-25 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348834

VERSION AF348834.1 GI:13487748

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 488)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 488)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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/organism="Homo sapiens"

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/note="from a patient with systemic lupus erythematosus"

CDS 1. .>488



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SSLQASDTAMYYCARSPGGLRLAVRFLHWGQGLTVTVSSASTKGPSVFPLAPSSKSTS  
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ORIGIN

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Best Local Similarity 90.5%; Pred. No. 5.7e-82;  
Matches 427; Conservative 0; Mismatches 30; Indels 15; Gaps 1;

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Db    301 CAGTGGAGCAGCCTGCAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360

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Qy    406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db    421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472
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RESULT 8

AF348829

LOCUS AF348829 488 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-2 immunoglobulin heavy chain variable region  
mRNA, partial cds.

ACCESSION AF348829

VERSION AF348829.1 GI:13487738

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 488)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A.; Bennett,L.B., Banchereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 488)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

source 1. .488  
 /organism="Homo sapiens"  
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 GGT"

# ORIGIN

Query Match 82.8%; Score 382.4; DB 9; Length 488;  
 Best Local Similarity 90.3%; Pred. No. 1.4e-81;  
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Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGTTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATTTC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGTTTTGCCATCTACTGGATCGGCTGGGTGCGCCACTTGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC	240
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Db      301 CAGTGGAGCAGCCTGCAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG 360
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Db      361 GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCACCGTCTCC 420
Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db      421 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 472

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# RESULT 9

AF348832

LOCUS AF348832 490 bp mRNA linear PRI 29-MAR-2001

DEFINITION Homo sapiens clone 26P-20 immunoglobulin heavy chain variable region mRNA, partial cds.

ACCESSION AF348832

VERSION AF348832.1 GI:13487744

## KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 490)

AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banphereau,J. and Pascual,V.

TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus

JOURNAL Unpublished

REFERENCE 2 (bases 1 to 490)

AUTHORS Jackson,D.G., Arce,E. and Pascual,V.

TITLE Direct Submission

JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers

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 /organism="Homo sapiens"  
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CDS

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 SSLQASDTAMYYCARSPGGLRLAVRFLHWGQGLVTVSSASTKGPSVFPLAPSSKSTS  
 GGT"

## ORIGIN

Query Match 82.8%; Score 382.4; DB 9; Length 490;  
Best Local Similarity 90.3%; Pred. No. 1.4e-81;  
Matches 426; Conservative 0; Mismatches 31; Indels 15; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAAGGCGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGAGTCTCTGAAGATTTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGTTTTGCCATCTACTGGATCGGCTGGGTGCGCCAGGTGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
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Qy	241	CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCCTTCCAAGGCCAGATCAAACTCTCAGCCGACAAGTCCATCAACACCGCCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Db	301	CAGTGGAGCAGCCTGCAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGTCCCCTGGG	360
Qy	361	GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	405
Db	361	GGATTACGTTTGGCGGTACGCTTCCTTCACTGGGGCCAGGGCACCTGGTCACCGTCTCC	420
Qy	406	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	421	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	472

## RESULT 1.0

HSVHID7

LOCUS	HSVHID7	408 bp	mRNA	linear	PRI 15-FEB-1996
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DEFINITION H.sapiens mRNA for immunoglobulin heavy chain V-region (clone CDN3ID7).

ACCESSION      Z47219

VERSION Z47219.1 GI:1197322

KEYWORDS immunoglobulin; immunoglobulin heavy chain; variable region.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 408)

REFERENCE	1 (pages 1-33) 1987
AUTHORS	Demaison, C., David, D., Letourneur, F., Theze, J., Saragosti, S. and Zouali, M.

TITLE Analysis of human VH gene repertoire expression in peripheral CD19+ B cells

JOURNAL Immunogenetics 42 (5), 342-352 (1995)

MEDLINE 96006568  
PUBMED 7590967  
REFERENCE 2 (bases 1 to 113)  
AUTHORS Demaison,C., David,D., Letourneur,F., Zouali,M., Saragosti,S. and Theze,J.  
TITLE A cDNA/anchor-PCR approach to analyse the human VH gene repertoire expressed by peripheral CD19+ B cells reveals a strong bias usage  
JOURNAL Unpublished  
REFERENCE 3 (bases 1 to 408)  
AUTHORS Demaison,C.  
TITLE Direct Submission  
JOURNAL Submitted (16-DEC-1994) Christophe Demaison, Immunologie, Unite d'Immunogenetique Cellulaire-institut Pasteur, 25, rue du Docteur Roux, Paris, 75015, FRANCE

FEATURES Location/Qualifiers  
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V\_region 58. .408  
/product="immunoglobulin variable region"

# ORIGIN

Query Match 82.4%; Score 380.8; DB 9; Length 408;  
Best Local Similarity 95.8%; Pred. No. 3.4e-81;  
Matches 391; Conservative 0; Mismatches 17; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGTTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAGCCCGGGAGTCTCTGAAGATCTCC 120
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Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 240

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      |||
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Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAAGGACTGCC 360

Qy    361 GGCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408

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Db 361 CACCACCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCA 408

RESULT 11

BD015542

LOCUS BD015542 438 bp DNA linear PAT 27-AUG-2002

DEFINITION Human monoclonal antibody against TGF-beta-II receptor and medicinal use thereof.

ACCESSION BD015542

VERSION BD015542.1 GI:22556679

KEYWORDS JP 2001206899-A/4.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 438)

AUTHORS Sakamoto,S. and Kamada,M.

TITLE Human monoclonal antibody against TGF-beta-II receptor and medicinal use thereof

JOURNAL Patent: JP 2001206899-A 4 31-JUL-2001;  
JAPAN TOBACCO INC

COMMENT OS Homo sapiens (human)

PN JP 2001206899-A/4

PD 31-JUL-2001

PF 08-NOV-2000 JP 2000340216

PI SHINJI SAKAMOTO,MASAFUMI KAMADA

PC C07K16/28,A61K39/395,A61P1/16,A61P9/04,A61P9/10,A61P9/10, PC  
A61P11/00,

PC A61P13/12,A61P17/00,A61P17/02,A61P17/04,A61P17/06,A61P19/02,

PC A61P43/00,

PC C12N5/10,C12N15/02//C12P21/08

CC Human monoclonal antibody against TGF-beta-II receptor and CC  
medicinal use

CC thereof

FH Key Location/Qualifiers

FT CDS (1)..(438).

FEATURES Location/Qualifiers

source 1..438  
/organism="Homo sapiens"  
/mol\_type="genomic DNA"  
/db\_xref="taxon:9606"

ORIGIN

Query Match 81.6%; Score 377; DB 6; Length 438;

Best Local Similarity 93.4%; Pred. No. 2.8e-80;

Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

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      |||
Db      121 TGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC 240
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Db      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCAGATACAGC 240
      |||
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGGGTGGGGGGG 360
      |||
Qy      361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411
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Db      361 TGTAGTGGTGGTAGCTGCTACCTCTGGGGCCAGGGAAACCTGGTCACCGTCTCCTCAGCT 420
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Qy      412 TCCACCAAGGGCCCATC 428
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Db      421 TCCACCAAGGGCCCATC 437

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# RESULT 12

BD094920

LCCUS BD094920 438 bp DNA linear PAT 27-AUG-2002

DEFINITION Human monoclonal antibody for human TGF-beta type II receptor and pharmaceutical use thereof.

ACCESSION BD094920

VERSION BD094920.1 GI:22640508

KEYWORDS WO 0136642-A/4.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 438)

AUTHORS Sakamoto, S. and Kamada, M.

TITLE Human monoclonal antibody for human TGF-beta type II receptor and pharmaceutical use thereof

JOURNAL Patent: WO 0136642-A 4 25-MAY-2001; JAPAN TOBACCO INC, SHINJI SAKAMOTO, MASAFUMI KAMADA

COMMENT OS Homo sapiens (human)

PN WO 0136642-A/4

PD 25-MAY-2001

PF 17-NOV-2000 WO 2000JP008129

PR 18-NOV-1999 JP 99P 328681, 08-NOV-2000 JP 00P 340216 PI

SHINJI SAKAMOTO, MASAFUMI KAMADA

PC C12N15/13, C07K16/28, C12N5/16, A61K39/395, A61P43/00, A61P13/12,

PC A61P11/00,

PC A61P1/16, A61P9/08, A61P9/10, A61P17/06, A61P17/04, A61P17/02, PC

A61P19/02,

PC A61P29/00

CC Human monoclonal antibody for human TGF-beta type II receptor

CC and

CC pharmaceutical use thereof

FH Key Location/Qualifiers

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Query Match 81.6%; Score 377; DB 6; Length 438;  
Best Local Similarity 93.4%; Pred. No. 2.8e-80;  
Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

RESULT 13



REFERENCE 1 (bases 1 to 489)  
 AUTHORS Arce,E., Jackson,D.G., Gill,M.A., Bennett,L.B., Banchereau,J. and Pascual,V.  
 TITLE Increased Frequency of Pre-Germinal Center B Cells and Plasmablasts in the Blood of Children with Systemic Lupus Erythematosus  
 JOURNAL Unpublished  
 REFERENCE 2 (bases 1 to 489)  
 AUTHORS Jackson,D.G., Arce,E. and Pascual,V.  
 TITLE Direct Submission  
 JOURNAL Submitted (12-FEB-2001) Pediatrics, UT Southwestern Medical Center, 5323 Harry Hines Blvd., Dallas, TX 75390, USA

FEATURES Location/Qualifiers  
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 /note="from a patient with systemic lupus erythematosus"  
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 GYKFASYWIGWVRQMPGKGLEWMGIIYPGDSNARYSPSFQGVIIISADKAMNTAFLQW  
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# ORIGIN

Query Match 79.7%; Score 368; DB 9; Length 489;  
 Best Local Similarity 88.3%; Pred. No. 4.1e-78;  
 Matches 417; Conservative 0; Mismatches 40; Indels 15; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db      61 GTGCAGTTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGACTATCTCT 120

Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db      121 TGTGAGGGTTCTGGATATAAGTTTGCCTCCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATGCCAGATACAGC 240

Qy      241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db      241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGGCCATGAACACCGCCTTCTTA 300

Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

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Query Match 79.4%; Score 366.8; DB 9; Length 440;  
 Best Local Similarity 91.4%; Pred. No. 8e-78;  
 Matches 402; Conservative 0; Mismatches 32; Indels 6; Gaps 1;

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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGATTCTCTGAAAATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
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Db    121 TGTCAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGTCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC 240
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Db    181 GGGAAAGGCCTGGAGTGGATGGGGCTCATCTATCCTGGTGA CTCAAGTACCAGATCCAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        ||||||||| |||||||||||||||||||||||| ||||||||||||||||||||
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Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db    301 CAGTGGAGAAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGTGAGACTTCTAAGT 360

Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 414
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Db    361 GGGGCTTCTCGCGATGACTACTGGGGCCAGGGAACCCCGGTACACCGTCTCCTCTGCCTCC 420

Qy    415 ACCAAGGGCCCATCGGTCTT 434
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 partial cds.  
 ACCESSION AY393096  
 VERSION AY393096.1 GI:46254123  
 KEYWORDS .  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 501)  
 AUTHORS Miura,Y., Chu,C.C., Dines,D.M., Asnis,S.E., Furie,R.A. and  
 Chiorazzi,N.  
 TITLE Diversification of the Ig variable region gene repertoire of  
 synovial B lymphocytes by nucleotide insertion and deletion  
 JOURNAL Mol. Med. 9 (5-8), 166-174 (2003)  
 MEDLINE 22933091  
 PUBMED 14571324

REFERENCE 2 (bases 1 to 501)  
AUTHORS Miura,Y., Chu,C.C., Dines,D.M., Krauss,E.S., Asnis,S.E., Furie,R.A.  
and Chiorazzi,N.  
TITLE Direct Submission  
JOURNAL Submitted (17-SEP-2003) Center for Immunology and Inflammation,  
North Shore - LIJ Research Institute, 350 Community Drive,  
Manhasset, NY 11030, USA

FEATURES Location/Qualifiers  
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LVKDYFP"

#### ORIGIN

Query Match 79.3%; Score 366.4; DB 9; Length 501;  
Best Local Similarity 90.8%; Pred. No. 9.9e-78;  
Matches 407; Conservative 0; Mismatches 26; Indels 15; Gaps 1;

Qy	25	CTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAGGTGCAGCTGGTGCAGTCTGGAGCA	84
Db	1	CTCCTCCTGGCTGTTCTCCAAGGGGTCTGTGCCGAGGTGCAGCTGGTACAGTCTGGAGCA	60
Qy	85	GAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTT	144
Db	61	GAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCCTGCAAGGCTTCTGGATACAGCTTT	120
Qy	145	ACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCCGGGAAGGCCTGGAGTGGATGGGG	204
Db	121	ACCAGCTACTGGATCGGCTGGGTGCGCCAGATGCCCGGGAAGGCCTGGAGTGGATGGGA	180
Qy	205	ATCATCTATCCTGGTGACTCTGATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACC	264
Db	181	ATCGTCTATCCTGGTGACTCTCATATCAAATACAGTCCGTCCTTCCAAGGCCAGGTCACC	240
Qy	265	ATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCG	324
Db	241	ATCTCAGCCGACAAGTCCCTCAGTACCGCCTACCTGCAGTGGATCAGCCTGAAGGCCTCG	300
Qy	325	GACACCGCCATGTATTACTGTGCGAGAGACCA-----ACTGGGCCTCTTT	369
Db	301	GACACCGCCATGTATTATTGTGCGAGGTTCCATAAGTTTAATATTGTTGTCGGCCTCTTT	360
Qy	370	GACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCG	429

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Db      361 GACTACTGGGGCCAGGGAACCCTGGTCAACGTCTCCTCAGCTTCCACCAAGGGCCCCATCG 420
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Qy      430 GTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db      421 GTCTTCCCCCTGGCGCCCTGCTCCAGGA 448

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Job time : 2473.59 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 357.717 Seconds  
(without alignments)  
6779.752 Million cell updates/sec

Title: US-08-728-463B-207  
Perfect score: 462  
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4134886 seqs, 2624710521 residues

Total number of hits satisfying chosen parameters: 8269772

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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2: geneseqn1990s:\*  
3: geneseqn2000s:\*  
4: geneseqn2001as:\*  
5: geneseqn2001bs:\*  
6: geneseqn2002as:\*  
7: geneseqn2002bs:\*  
8: geneseqn2003as:\*  
9: geneseqn2003bs:\*  
10: geneseqn2003cs:\*  
11: geneseqn2003ds:\*  
12: geneseqn2004s:\*

Pred. No. is the number of results predicted by chance to have a  
score greater than or equal to the score of the result being printed,  
and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	% Query		DB	ID	Description
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1	462	100.0	462	2	AAT73442	Aat73442 Human imm
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3	462	100.0	462	2	AAZ21994	Aaz21994 Partial n
4	417	90.3	7558	8	AAD56207	Aad56207 Human AB-
5	413.8	89.6	469	8	AAD56222	Aad56222 Human AB-
6	404	87.4	1401	12	ADM41566	Adm41566 Anti-inte
7	399.2	86.4	1389	12	ADM41568	Adm41568 Anti-inte
8	392.8	85.0	1392	12	ADM41570	Adm41570 Anti-inte
9	377	81.6	438	4	AAH41155	Aah41155 Human cod
10	363.8	78.7	1612	4	AAS22482	Aas22482 Human cDN
11	362.8	78.5	1018	12	ADF69259	Adf69259 Human lun
12	357.4	77.4	411	12	ADM41550	Adm41550 Anti-inte
13	356.6	77.2	1590	6	AAS62808	Aas62808 cDNA sequ
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16	352.6	76.3	675	4	AAH30060	Aah30060 TRO005 he
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21	345.6	74.8	1576	6	AAS62720	Aas62720 cDNA sequ
22	345.2	74.7	390	8	ACC44843	Acc44843 Human ant
23	335.6	72.6	414	2	AAT73436	Aat73436 Human imm
24	335.6	72.6	414	2	AAV39234	Aav39234 Functiona
25	335.6	72.6	414	2	AAZ21988	Aaz21988 Partial n
26	330	71.4	477	2	AAT42623	Aat42623 Heavy cha
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28	330	71.4	477	12	ADL00462	Adl00462 Human ant
29	329.4	71.3	1641	10	ADF90760	Adf90760 Human hep
30	327	70.8	421	3	AAZ39315	Aaz39315 Nucleotid
31	320.4	69.4	560	12	ADL25465	Adl25465 Human mAb
32	316.2	68.4	730	3	AAZ29000	Aaz29000 Anti-muri
33	316	68.4	1572	6	AAS62817	Aas62817 cDNA sequ
34	314.2	68.0	348	6	ABA05500	Aba05500 Human mon
35	313.8	67.9	417	3	AAZ39330	Aaz39330 Nucleotid
36	312.6	67.7	1524	6	ABK34998	Abk34998 Human cDN
37	310.2	67.1	732	6	ABS56908	Abs56908 DNA encod
38	309.4	67.0	348	12	ADP22259	Adp22259 Human ant
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40	309.2	66.9	351	8	ACC47597	Acc47597 Human ant
41	307	66.5	200000	12	ADO47191	Ado47191 DNA seque
42	305.4	66.1	700	2	AAQ78989	Aaq78989 Human imm
43	304.4	65.9	351	4	AAH42410	Aah42410 Nucleotid
44	304.4	65.9	354	4	AAH22956	Aah22956 Antibody
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## ALIGNMENTS

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 AC AAT73442;  
 XX  
 DT 03-DEC-1997 (first entry)  
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 DE Human immunoglobulin light chain variable region partial transcript.  
 XX  
 KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;  
 KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;  
 KW transplant rejection; ss.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO9713852-A1.  
 XX  
 PD 17-APR-1997.  
 XX  
 PF 10-OCT-1996; 96WO-US016433.  
 XX  
 PR 10-OCT-1995; 95US-00544404.  
 XX  
 PA (GENP-) GENPHARM INT INC.  
 XX  
 PI Lonberg N, Kay RM;  
 XX  
 DR WPI; 1997-235888/21.  
 XX  
 PT Novel anti-CD4 antibody produced by transgenic mice - used in the  
 PT treatment of auto-immune disease etc.  
 XX  
 PS Claim 44; Page 255-256; 396pp; English.  
 XX  
 CC A novel composition has been developed which comprises an immunoglobulin  
 CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M  
 CC -1 for binding to a predetermined human antigen. The present sequence  
 CC represents a human light chain variable region partial nucleotide  
 CC sequence, 4D1 gamma, which encodes an amino acid sequence from a claimed  
 CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies  
 CC may be used in therapeutic and diagnostic applications, especially for  
 CC the treatment of human diseases. These antibodies reduce activity of CD4  
 CC cells and reduce undesirable autoimmune reactions, inflammatory response  
 CC and transplant rejection. Transgenic animals are capable of producing  
 CC heterologous antibodies of multiple isotypes by undergoing isotype  
 CC switching. These animals produce a first Ig type that is necessary for  
 CC antigen-stimulated B-cell maturation and can switch to encode and produce  
 CC one or more subsequent heterologous isotypes  
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 SQ Sequence 462 BP; 91 A; 148 C; 129 G; 94 T; 0 U; 0 Other;

Query Match 100.0%; Score 462; DB 2; Length 462;  
 Best Local Similarity 100.0%; Pred. No. 2.6e-102;  
 Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
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 Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Qy	241	CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Db	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Qy	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Db	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Qy	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462
Db	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462

# RESULT 2

AAV39240

ID AAV39240 standard; DNA; 462 BP.

XX

AC AAV39240;

XX

DT 18-DEC-1998 (first entry)

XX

DE Functional gamma transcript isolated from transgenic cell line 4D1.

XX

KW Transgenic animal; human heterologous antibody; transgene;

KW isotype switching; neutrophilefflux; reperfusion injury; CD4 binding;

KW autoimmune reaction; inflammatory response; transplant rejection;

KW acid induced lung injury; acute adult respiratory distress syndrome;

KW ARDS; vasculitis; septic shock; allergic reaction; asthma;

KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

OS Mus sp.

XX

PN WO9824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX



PR 02-DEC-1996; 96US-00758417.  
XX  
PA (GENP-) GENPHARM INT.  
XX  
PI Lonberg N, Kay RM;  
XX  
DR WPI; 1998-333306/29.  
XX  
PT Hybridoma producing antibody specific for interleukin-8 - used to prevent  
PT efflux of neutrophils from vasculature, and treat reperfusion injury.  
XX  
PS Example 41; Page 304; 452pp; English.  
XX  
CC AAV39232-41 represent functional transcripts of a human IgGKappa anti-CD4  
CC antibody. The sequences are isolated from 5 different transgenic mouse  
CC hybridoma cell lines. The specification describes transgenic non-human  
CC animals, especially a mouse, which are capable of producing a human  
CC heterologous antibodies of multiple isotypes by undergoing isotype  
CC switching. The transgenic animals have human heavy and light chain  
CC transgenes. The transgenes are capable of functionally rearranging a  
CC heterologous diversity (D) gene in a variable-diversity-junction (V-D-J)  
CC recombination. The transgenes include a heavy chain transgene comprising  
CC at least one V, D and J gene segment, and one constant region gene  
CC segment. The immunoglobulin (Ig) light chain transgene comprises at least  
CC one V and J gene segment and one constant region gene segment. The gene  
CC segments are heterologous to the transgenic animal. The antibody can be  
CC used to prevent efflux of neutrophils from vasculature. It can also be  
CC used to treat reperfusion injury. CD4 binding antibodies are used to  
CC reduce undesirable autoimmune reactions, inflammatory responses and  
CC rejection of transplanted organs. The anti-IL-8 antibodies can reduce  
CC tissue damage and prolong survival in animal models of acute adult  
CC respiratory distress syndrome (ARDS) and acid induced lung injury. The  
CC anti-IL-8 antibodies can also be used for the treatment of vasculitis,  
CC septic shock, allergic reactions (e.g. asthma) and cystic fibrosis  
XX  
SQ Sequence 462 BP; 91 A; 148 C; 129 G; 94 T; 0 U; 0 Other;

Query Match 100.0%; Score 462; DB 2; Length 462;  
Best Local Similarity 100.0%; Pred. No. 2.6e-102;  
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
|||  
Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
  
Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
|||  
Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
  
Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
|||  
Db 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
  
Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
|||  
Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 |||  
 Db 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420  
 |||  
 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420

Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462  
 |||  
 Db 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

# RÉSULT 3

AAZ21994

ID AAZ21994 standard; DNA; 462 BP.

XX

AC AAZ21994;

XX

DT 24-NOV-1999 (first entry)

XX

DE Partial nucleotide sequence for a functional transcript 4D1-gamma.

XX

KW Transgenic animal; heterologous antibody; hybridoma; B cell;

KW transgenic mouse; human heavy chain transgene; digoxin; PCR primer;

KW human light chain transgene; immortalized cell; immunoglobulin;

KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;

KW transplant rejection; blood disorder; coagulation disorder; ss.

XX

OS Synthetic.

OS Homo sapiens.

XX

PN WO9945962-A1.

XX

PD 16-SEP-1999.

XX

PF 12-MAR-1999; 99WO-US005535.

XX

PR 13-MAR-1998; 98US-00042353.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Fishwild DM, Ball WJ;

XX

DR WPI; 1999-551219/46.

XX

PT Novel transgenic non-human animals used to produce heterologous

PT antibodies.

XX

PS Example 41; Page 305; 484pp; English.

XX

CC The specification describes transgenic animals that are capable of

CC producing a heterologous antibody. The antibodies are isolated from a

CC hybridoma, comprising B cells, that is obtained from a transgenic mouse  
CC having a genome comprising a human heavy chain transgene and a human  
CC light chain transgene. The B cells are fused to immortalized cells  
CC suitable for generating a hybridoma, which produces a detectable amount  
CC of an immunoglobulin that specifically binds digoxin or Shinga-like  
CC toxin. B cells from transgenic animals can be used to generate hybridomas  
CC expressing monoclonal high affinity human sequence antibodies. Antibodies  
CC produced from the transgenic animals of the invention can be used to  
CC treat human diseases, e.g. autoimmune diseases, cancer, infectious  
CC disease, transplant rejection, blood disorders such as coagulation  
CC disorders and other diseases. The present sequence represents a partial  
CC nucleotide sequence for a functional transcript used in the course of the  
CC invention

XX

SQ Sequence 462 BP; 91 A; 148 C; 129 G; 94 T; 0 U; 0 Other;

Query Match 100.0%; Score 462; DB 2; Length 462;  
Best Local Similarity 100.0%; Pred. No. 2.6e-102;  
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC	240
Qy	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Db	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG	360
Qy	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Db	361	GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG	420
Qy	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462
Db	421	GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT	462

RESULT 4

AAD56207

ID AAD56207 standard; DNA; 7558 BP.

XX

AC AAD56207;  
XX  
DT 07-AUG-2003 (first entry)  
XX  
DE Human AB-PG1-XG1-069 PSMA antibody heavy chain DNA.  
XX  
KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;  
KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;  
KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;  
KW NAALADase; antibody; ds.  
XX  
OS Homo sapiens.  
XX  
PN WO2003034903-A2.  
XX  
PD 01-MAY-2003.  
XX  
PF 23-OCT-2002; 2002WO-US033944.  
XX  
PR 23-OCT-2001; 2001US-0335215P.  
PR 07-MAR-2002; 2002US-0362747P.  
PR 20-SEP-2002; 2002US-0412618P.  
XX  
PA (PSMA-) PSMA DEV CO LLC.  
XX  
PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;  
XX  
DR WPI; 2003-403281/38.  
XX  
PT Novel isolated antibody which binds to epitope on prostate specific  
PT membrane antigen, and competitively inhibits binding of second antibody  
PT to its target epitope on the antigen, useful for treating prostate  
PT cancer.  
XX  
PS Claim 1; Page 193-197; 238pp; English.  
XX  
CC The invention relates to an antibody or its antigen-binding fragment  
CC which specifically binds to epitope on prostate specific membrane antigen  
CC (PSMA), and competitively inhibits the specific binding of a second  
CC antibody to its target epitope on PSMA. The invention is useful for  
CC diagnosing, treating or preventing PSMA-mediated disease such as prostate  
CC cancer or non-prostate cancer bladder chosen from cancer including  
CC transitional cell carcinoma, pancreatic cancer including pancreatic duct  
CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney  
CC cancer including conventional renal cell carcinoma, sarcoma including  
CC soft tissue sarcoma, breast cancer including breast carcinoma, brain  
CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon  
CC cancer including colonic carcinoma, testicular cancer including  
CC testicular embryonal carcinoma, or melanoma including malignant melanoma.  
CC The invention is useful also for inhibiting or enhancing folate hydrolase  
CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked  
CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,  
CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV  
CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl  
CC hydrolase polypeptide. The present sequence is human PSMA antibody heavy  
CC chain DNA  
XX

SQ Sequence 7558 BP; 1719 A; 2120 C; 1972 G; 1747 T; 0 U; 0 Other;

Query Match 90.3%; Score 417; DB 8; Length 7558;  
Best Local Similarity 95.5%; Pred. No. 3.4e-91;  
Matches 442; Conservative 0; Mismatches 15; Indels 6; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      923 ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 982

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      983 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 1042

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    1043 TGTAAGGGTTCTGGATACAGCTTTACAGTTACTGGATCGGCTGGGTGCGCCAGATGCCC 1102

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    1103 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 1162

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    1163 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 1222

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      |||
Db    1223 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 1282

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db    1283 GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 1342

Qy     415 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    1343 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCTAGCAAGA 1385
```

RESULT 5

AAD56222

ID AAD56222 standard; DNA; 469 BP.

XX

AC AAD56222;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-069 PSMA antibody heavy chain variable region (VH) DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; heavy chain variable region; VH; gene; ds.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 11. .424  
 FT /\*tag= a  
 FT /product= "PSMA antibody heavy chain variable region"  
 FT /note= "No stop codon"  
 FT /partial  
 XX  
 PN WO2003034903-A2.  
 XX  
 PD 01-MAY-2003.  
 XX  
 PF 23-OCT-2002; 2002WO-US033944.  
 XX  
 PR 23-OCT-2001; 2001US-0335215P.  
 PR 07-MAR-2002; 2002US-0362747P.  
 PR 20-SEP-2002; 2002US-0412618P.  
 XX  
 PA (PSMA-) PSMA DEV CO LLC.  
 XX  
 PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;  
 XX  
 DR WPI; 2003-403281/38.  
 DR P-PSDB; AAE37207.  
 XX  
 PT Novel isolated antibody which binds to epitope on prostate specific  
 PT membrane antigen, and competitively inhibits binding of second antibody  
 PT to its target epitope on the antigen, useful for treating prostate  
 PT cancer.  
 XX  
 PS Claim 20; Page 233-234; 238pp; English.  
 XX  
 CC The invention relates to an antibody or its antigen-binding fragment  
 CC which specifically binds to epitope on prostate specific membrane antigen  
 CC (PSMA), and competitively inhibits the specific binding of a second  
 CC antibody to its target epitope on PSMA. The invention is useful for  
 CC diagnosing, treating or preventing PSMA-mediated disease such as prostate  
 CC cancer or non-prostate cancer bladder chosen from cancer including  
 CC transitional cell carcinoma, pancreatic cancer including pancreatic duct  
 CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney  
 CC cancer including conventional renal cell carcinoma, sarcoma including  
 CC soft tissue sarcoma, breast cancer including breast carcinoma, brain  
 CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon  
 CC cancer including colonic carcinoma, testicular cancer including  
 CC testicular embryonal carcinoma, or melanoma including malignant melanoma.  
 CC The invention is useful also for inhibiting or enhancing folate hydrolase  
 CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked  
 CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,  
 CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV  
 CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl  
 CC hydrolase polypeptide. The present sequence is human PSMA antibody heavy  
 CC chain variable region (VH) DNA  
 XX  
 SQ Sequence 469 BP; 91 A; 149 C; 134 G; 95 T; 0 U; 0 Other;

Query Match 89.6%; Score 413.8; DB 8; Length 469;  
 Best Local Similarity 96.0%; Pred. No. 1.3e-90;  
 Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

QY 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
 |||  
 Db 11 ATGGGGTCAACCGTCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 70  
 QY 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
 |||  
 Db 71 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130  
 QY 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 |||  
 Db 131 TGTAAGGGTTCTGGATACAGCTTTACCGTACTGGATCGGCTGGGTGCGCCAGATGCCC 190  
 QY 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 |||  
 Db 191 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 250  
 QY 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 251 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 310  
 QY 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354  
 |||  
 Db 311 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 370  
 QY 355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414  
 |||  
 Db 371 GCAGCTGGCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 430  
 QY 415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 449  
 |||  
 Db 431 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 465

# RESULT 6

ADM41566

ID ADM41566 standard; cDNA; 1401 BP.

XX

AC ADM41566;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;  
 KW antiasthmatic; antiinflammatory; dermatological; antiallergic;  
 KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;  
 KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;  
 KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;  
 KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .1401

FT /\*tag= a

FT /product= "Heavy chain"

FT /partial

FT /note= "No stop codon"  
XX  
PN WO2004022718-A2.  
XX  
PD 18-MAR-2004.  
XX  
PF 05-SEP-2003; 2003WO-US027978.  
XX  
PR 06-SEP-2002; 2002US-0408719P.  
XX  
PA (AMGE-) AMGEN INC.  
XX  
PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;  
PI Elliott G;  
XX  
DR WPI; 2004-248462/23.  
DR P-PSDB; ADM41567.  
XX  
PT Isolated human antibody that specifically binds interleukin-1 receptor  
PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as  
PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.  
XX  
PS Example 7; SEQ ID NO 31; 179pp; English.  
XX  
CC The present sequence is that of cDNA encoding a human anti-interleukin-1  
CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) heavy chain. The  
CC invention provides antibodies that comprise this heavy chain sequence.  
CC Human MABs to IL-1R1 were prepared using the HCo7 strain of transgenic  
CC mice, which expresses human antibody genes. These mice were immunised  
CC with purified recombinant IL-1R1, and splenocytes from immunised mice  
CC were fused to a mouse myeloma cell line to generate hybridomas.  
CC Hybridomas which secreted a MAB that bound with high avidity to IL-1R1  
CC were selected. The MABs inhibit IL-1 signalling by competing with IL-  
CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain  
CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies  
CC and (Fab')<sub>2</sub> antibodies derived from them, are used in methods of treating  
CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.  
CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral  
CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,  
CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,  
CC Clostridium associated illnesses, coronary conditions, cancer including  
CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,  
CC fibromyalgia, glomerulonephritis, graft versus host disease,  
CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,  
CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,  
CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,  
CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,  
CC septic shock, side effects of radiation therapy, temporal mandibular  
CC joint disease, sleep disturbance, uveitis, or an inflammatory condition  
CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic  
CC surgery, infection or other disease processes.  
XX  
SQ Sequence 1401 BP; 318 A; 462 C; 374 G; 247 T; 0 U; 0 Other;

Query Match 87.4%; Score 404; DB 12; Length 1401;  
Best Local Similarity 93.9%; Pred. No. 3.6e-88;  
Matches 432; Conservative 0; Mismatches 25; Indels 3; Gaps 1;



```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCTCCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 460

```

# RESULT 7

ADM41568

ID ADM41568 standard; cDNA; 1389 BP.

XX

AC ADM41568;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;

KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;

KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .1389

FT /\*tag= a

FT /product= "Heavy chain"

FT /partial  
 FT /note= "No stop codon"  
 XX  
 PN WO2004022718-A2.  
 XX  
 PD 18-MAR-2004.  
 XX  
 PF 05-SEP-2003; 2003WO-US027978.  
 XX  
 PR 06-SEP-2002; 2002US-0408719P.  
 XX  
 PA (AMGE-) AMGEN INC.  
 XX  
 PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;  
 PI Elliott G;  
 XX  
 DR WPI; 2004-248462/23.  
 DR P-PSDB; ADM41569.  
 XX  
 PT Isolated human antibody that specifically binds interleukin-1 receptor  
 PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as  
 PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.  
 XX  
 PS Example 7; SEQ ID NO 33; 179pp; English.  
 XX  
 CC The present sequence is that of cDNA encoding a human anti-interleukin-1  
 CC receptor type 1 (IL-1R1) monoclonal antibody (MAB) heavy chain. The  
 CC invention provides antibodies that comprise this heavy chain sequence.  
 CC Human MABs to IL-1R1 were prepared using the HCo7 strain of transgenic  
 CC mice, which expresses human antibody genes. These mice were immunised  
 CC with purified recombinant IL-1R1, and splenocytes from immunised mice  
 CC were fused to a mouse myeloma cell line to generate hybridomas.  
 CC Hybridomas which secreted a MAB that bound with high avidity to IL-1R1  
 CC were selected. The MABs inhibit IL-1 signalling by competing with IL-  
 CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain  
 CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies  
 CC and (Fab')2 antibodies derived from them, are used in methods of treating  
 CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.  
 CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral  
 CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,  
 CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,  
 CC Clostridium associated illnesses, coronary conditions, cancer including  
 CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,  
 CC fibromyalgia, glomerulonephritis, graft versus host disease,  
 CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,  
 CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,  
 CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,  
 CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,  
 CC septic shock, side effects of radiation therapy, temporal mandibular  
 CC joint disease, sleep disturbance, uveitis, or an inflammatory condition  
 CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic  
 CC surgery, infection or other disease processes.  
 XX  
 SQ Sequence 1389 BP; 313 A; 459 C; 374 G; 243 T; 0 U; 0 Other;

Query Match 86.4%; Score 399.2; DB 12; Length 1389;  
 Best Local Similarity 93.3%; Pred. No. 5.2e-87;

Matches 429; Conservative 0; Mismatches 28; Indels 3; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	61	GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC	180
Db	121	TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCC	180
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC	240
Qy	241	CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	241	CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG	300
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA	357
Db	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA	360
Qy	358	CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCCTCCACC	417
Db	361	CTCGACTACTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCTAGTGCCTCCACC	420
Qy	418	AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	421	AAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA	460

RESULT 8

ADM41570

ID ADM41570 standard; cDNA; 1392 BP.

XX

AC ADM41570;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain cDNA.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;

KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;

KW cytostatic; gene; ss.

XX

05 Homo sapiens.

XX

FH	Key	Location/Qualifiers
----	-----	---------------------

FT	CDS	1.1392
----	-----	--------

FT /\*tag= a

FT /product= "Heavy chain"  
 FT /partial  
 FT /note= "No stop codon"  
 FT unsure 1288. .1290  
 FT /\*tag= b  
 FT /note= "Encodes Asp"  
 FT unsure 1333. .1335  
 FT /\*tag= c  
 FT /note= "Encodes Met"  
 XX  
 PN WO2004022718-A2.  
 XX  
 PD 18-MAR-2004.  
 XX  
 PF 05-SEP-2003; 2003WO-US027978.  
 XX  
 PR 06-SEP-2002; 2002US-0408719P.  
 XX  
 PA (AMGE-) AMGEN INC.  
 XX  
 PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;  
 PI Elliott G;  
 XX  
 DR WPI; 2004-248462/23.  
 DR P-PSDB; ADM41571.  
 XX  
 PT Isolated human antibody that specifically binds interleukin-1 receptor  
 PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as  
 PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.  
 XX  
 PS Example 7; SEQ ID NO 35; 179pp; English.  
 XX  
 CC The present sequence is that of cDNA encoding a human anti-interleukin-1  
 CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) heavy chain. The  
 CC invention provides antibodies that comprise this heavy chain sequence.  
 CC Human MAb to IL-1R1 were prepared using the HCo7 strain of transgenic  
 CC mice, which expresses human antibody genes. These mice were immunised  
 CC with purified recombinant IL-1R1, and splenocytes from immunised mice  
 CC were fused to a mouse myeloma cell line to generate hybridomas.  
 CC Hybridomas which secreted a MAb that bound with high avidity to IL-1R1  
 CC were selected. The MABs inhibit IL-1 signalling by competing with IL-  
 CC 1beta and IL-1alpha binding to IL-1R. These MABs, as well as single chain  
 CC antibodies single chain Fv antibodies, Fab antibodies, Fab' antibodies  
 CC and (Fab')<sub>2</sub> antibodies derived from them, are used in methods of treating  
 CC IL-1 mediated diseases or for detecting the amount of IL-1R1 in a sample.  
 CC IL-1 mediated diseases include acute pancreatitis, amyotrophic lateral  
 CC sclerosis, Alzheimer's disease, cachexia, anorexia, asthma,  
 CC atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,  
 CC Clostridium associated illnesses, coronary conditions, cancer including  
 CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,  
 CC fibromyalgia, glomerulonephritis, graft versus host disease,  
 CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,  
 CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,  
 CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,  
 CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,  
 CC septic shock, side effects of radiation therapy, temporal mandibular  
 CC joint disease, sleep disturbance, uveitis, or an inflammatory condition

CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic  
CC surgery, infection or other disease processes.

XX

SQ Sequence 1392 BP; 312 A; 451 C; 381 G; 246 T; 0 U; 2 Other;

Query Match 85.0%; Score 392.8; DB 12; Length 1392;  
Best Local Similarity 92.4%; Pred. No. 1.9e-85;  
Matches 425; Conservative 0; Mismatches 32; Indels 3; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCAGCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGGCACCCTCCTCCAAGA 457
      |||
Db    421 AAGGGGCCATCCGTCTTCCCCCTGGGCGCCCTGCTCCAGGA 460
```

#### RESULT 9

AAH41155

ID AAH41155 standard; DNA; 438 BP.

XX

AC AAH41155;

XX

DT 22-AUG-2001 (first entry)

XX

DE Human coding sequence SEQ ID 7.

XX

KW Human; antiarthritic; cardiant; monoclonal antibody; keloid; arthritis;

KW Tumour Growth Factor-beta II receptor; TGF-beta II receptor; atopy;

KW signal transduction inhibition; tissue fibrosis; atherosclerosis; ds..

XX

OS Homo sapiens.

XX  
 PN WO200136642-A1.  
 XX  
 PD 25-MAY-2001.  
 XX  
 PF 17-NOV-2000; 2000WO-JP008129.  
 XX  
 PR 18-NOV-1999; 99JP-00328681.  
 PR 08-NOV-2000; 2000JP-00340216.  
 XX  
 PA (NISB ) JAPAN TOBACCO INC.  
 XX  
 PI Sakamoto S, Kamada M;  
 XX  
 DR WPI; 2001-343825/36.  
 DR P-PSDE; AAB99113.  
 XX  
 PT Human monoclonal antibodies recognizing human TGF-beta II receptor,  
 PT useful for treating TGF-beta associated diseases such as tissue fibrosis.  
 XX  
 PS Example 12; Page 98-99; 118pp; Japanese.  
 XX  
 CC The present invention relates to novel human monoclonal antibodies. The  
 CC antibodies can bind to human Tumour Growth Factor-beta (TGF-beta) II  
 CC receptor, resulting in the inhibition of the signal transduction of human  
 CC TGF-beta into cells. The antibodies can be used for the prevention and  
 CC treatment of diseases associated with the production of TGF-beta, such as  
 CC tissue fibrosis in the lung, liver, skin, kidney or other tissues,  
 CC atherosclerosis, atopy, keloid and arthritis. The present sequence was  
 CC used in the present invention  
 XX  
 SQ Sequence 438 BP; 85 A; 128 C; 135 G; 90 T; 0 U; 0 Other;

Query Match 81.6%; Score 377; DB 4; Length 438;  
 Best Local Similarity 93.4%; Pred. No. 1e-81;  
 Matches 408; Conservative 0; Mismatches 20; Indels 9; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
  
 Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
  
 Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
  
 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATACAGC 240  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCAGATACAGC 240  
  
 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 301 CAGTGGAGCAGCCTGAAGGCCCTCGGACACCGCCATGTATTACTGTGCGAGGGTGGGGGGG 360

Qy 361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411  
 || || || ||||||||||||||||||||||||||||||||||||  
 Db 361 TGTAGTGGTGGTAGCTGCTACCTCTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCT 420

Qy 412 TCCACCAAGGGCCCATC 428  
 ||||||||||||||||  
 Db 421 TCCACCAAGGGCCCATC 437

RESULT 10

AAS22482

ID AAS22482 standard; cDNA; 1612 BP.

XX

AC AAS22482;

XX

DT 24-OCT-2001 (first entry)

XX

DE Human cDNA encoding a novel human protein #48.

XX

KW Human; novel protein; ss; Antianaemic; osteopathic; antiinflammatory;  
 KW immunomodulatory; cytostatic; neuroprotective; vulnerary; nootropic;  
 KW anticonvulsant; antiarthritic; cerebroprotective; antifungal; antiviral;  
 KW antibacterial; antiallergic; dermatological; haemostatic; antiasthmatic;  
 KW thrombolytic; immunogen; antibody; gene therapy; neurological disorder;  
 KW Parkinson's disease; inflammatory disorder; cancer; asthma; osteoporosis;  
 KW tissue regeneration; immune disorder.

XX

OS Homo sapiens.

XX

PN WO200155437-A2.

XX

PD 02-AUG-2001.

XX

PF 25-JAN-2001; 2001WO-US002623.

XX

PR 25-JAN-2000; 2000US-00491404.

XX

PA (HYSE-) HYSEQ INC.

XX

PI Tang YT, Liu C, Drmanac RT;

XX

DR WPI; 2001-451939/48.

DR

P-PSDB; AAU14177.

XX

PT Isolated polypeptides useful for treating anti-inflammatory diseases,  
 PT nervous system disorders, and for regenerating bone and cartilage.

XX

PS Claim 1; Page 247-249; 894pp; English.

XX

CC The invention relates to polynucleotides encoding novel human proteins or  
 CC their active domains. The polypeptides, polynucleotides and antibodies  
 CC raised against the polypeptides are used in a method of treatment of a  
 CC mammal and prevention of disorders caused by the aberrant protein





Db	463	ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 522
Qy	457	A 457
Db	523	A 523

RESULT 11

ADF69259

ID ADF69259 standard; cDNA; 1018 BP.

XX

AC ADF69259;

XX

DT 26-FEB-2004 (first entry)

XX

DE Human lung specific nucleotide sequence SEQ ID NO:16.

XX

KW human; lung specific nucleic acid; lung specific protein; lung cancer;

KW cytostatic; gene therapy; gene; ss; chromosome 14.

XX

OS Homo sapiens.

XX

PN WO2003102137-A2.

XX

PD 11-DEC-2003.

XX

PF 30-MAY-2003; 2003WO-US016810.

XX

PR 31-MAY-2002; 2002US-0385301P.

XX

PA (DIAD-) DIADEXUS INC.

XX

PI Chen S, Macina RA, Sun Y, Liu C, Turner LR;

XX

DR WPI; 2004-053457/05.

XX

PT New human lung specific nucleic acid, useful for preparing a composition

PT for diagnosing or treating lung cancer.

XX

PS Claim 1; SEQ ID NO 16; 221pp; English.

XX

CC The present invention describes a human lung specific nucleic acid  
 CC molecule. Also described: (1) a method for determining the presence of a  
 CC lung specific nucleic acid (LSNA) in a sample; (2) a vector comprising  
 CC the nucleic acid molecule; (3) a host cell comprising the vector; (4) a  
 CC method for producing a polypeptide encoded by the nucleic acid molecule;  
 CC (5) a polypeptide encoded by the nucleic acid molecule; (6) an antibody  
 CC or its fragment that specifically binds to the polypeptide; (7) a method  
 CC for determining the presence of a lung specific protein in a sample; (8)  
 CC a method for diagnosing and monitoring the presence and metastases of  
 CC lung cancer in a patient; (9) a kit for detecting a risk of cancer or  
 CC presence of cancer in a patient comprising a means for determining the  
 CC presence the nucleic acid molecule or polypeptide in a sample of a  
 CC patient; (10) a method of treating a patient with lung cancer; and (11) a  
 CC vaccine comprising the polypeptide or the nucleic acid encoding the  
 CC polypeptide. Human LSNA molecules and related proteins have cytostatic

CC activity, and can be used in gene therapy. They are useful for preparing  
CC a composition for diagnosing or treating lung cancer. The present  
CC sequence represents a human LSNA molecule, which is used in the  
CC exemplification of the present invention.

XX

SQ Sequence 1018 BP; 188 A; 335 C; 288 G; 207 T; 0 U; 0 Other;

Query Match 78.5%; Score 362.8; DB 12; Length 1018;  
Best Local Similarity 90.2%; Pred. No. 3.3e-78;  
Matches 415; Conservative 0; Mismatches 32; Indels 13; Gaps 2;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      60 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 119

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db    120 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 179

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    180 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 239

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    240 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 299

Qy    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    300 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 359

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
      |||
Db    360 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCTATAGCA 419

Qy    352 ---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
      |
Db    420 GTGGCTGGTCACTACTACTTTGACTACTGGGGCCA-GGAACCCTGGTCACCGTCTCCTCA 478

Qy    409 GCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCT 448
      |
Db    479 GGGAGTGCATCCGCCCAACCCTTTTCCCCCTCGTCTCCT 518
```

#### RESULT 12

ADM41550

ID ADM41550 standard; cDNA; 411 BP.

XX

AC ADM41550;

XX

DT 03-JUN-2004 (first entry)

XX

DE Anti-interleukin-1 receptor type 1 antibody heavy chain variable region.

XX

KW Human; monoclonal antibody; antibody; interleukin-1; receptor;

KW antiasthmatic; antiinflammatory; dermatological; antiallergic;

KW protozoacide; antirheumatic; antiarthritic; osteopathic; vasotropic;

KW analgesic; antidiabetic; nephrotropic; antianaemic; nootropic;  
KW anticonvulsant; dermatological; antigout; antiparkinsonian; antidiabetic;  
KW cytostatic; gene; ss.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 1. .411

FT /\*tag= a

FT /product= "Heavy chain variable region"

FT /partial

FT /note= "No stop codon"

XX

PN WO2004022718-A2.

XX

PD 18-MAR-2004..

XX

PF 05-SEP-2003; 2003WO-US027978.

XX

PR 06-SEP-2002; 2002US-0408719P.

XX

PA (AMGE-) AMGEN INC.

XX

PI Varnum B, Vezina C, Witte A, Qian X, Martin F, Huang H;

PI Elliott G;

XX

DR WPI; 2004-248462/23.

DR P-PSDB; ADM41551.

XX

PT Isolated human antibody that specifically binds interleukin-1 receptor  
PT type 1 (IL-1R1) useful for treating IL-1 mediated diseases such as  
PT rheumatoid arthritis, osteoarthritis and inflammatory conditions.

XX

PS Example 7; SEQ ID NO 15; 179pp; English.

XX

CC The present sequence is that of cDNA encoding human anti-interleukin-1  
CC receptor type 1 (IL-1R1) monoclonal antibody (MAb) 15C4 heavy chain  
CC variable region: Human MAbs to IL-1R1 were prepared using the HCo7 strain  
CC of transgenic mice, which expresses human antibody genes. These mice were  
CC immunised with purified recombinant IL-1R1, and splenocytes from  
CC immunised mice were fused to a mouse myeloma cell line to generate  
CC hybridomas. Hybridomas which secreted a MAb that bound with high avidity  
CC to IL-1R1 were selected. The MAbs inhibit IL-1 signalling by competing  
CC with IL-1beta and IL-1alpha binding to IL-1R. These MAbs, as well as  
CC single chain antibodies single chain Fv antibodies, Fab antibodies, Fab'  
CC antibodies and (Fab')<sub>2</sub> antibodies derived from them, are used in methods  
CC of treating IL-1 mediated diseases or for detecting the amount of IL-1R1  
CC in a sample. IL-1 mediated diseases include acute pancreatitis,  
CC amyotrophic lateral sclerosis, Alzheimer's disease, cachexia, anorexia,  
CC asthma, atherosclerosis, autoimmune vasculitis, chronic fatigue syndrome,  
CC Clostridium associated illnesses, coronary conditions, cancer including  
CC leukaemia and tumour metastasis, diabetes, endometriosis, fever,  
CC fibromyalgia, glomerulonephritis, graft versus host disease,  
CC osteoarthritis, rheumatoid arthritis, inflammatory eye disease,  
CC ischaemia, Kawasaki's disease, learning impairment, lung diseases,  
CC multiple sclerosis, myopathy, osteoporosis, pain, Parkinson's disease,  
CC periodontal disease, pre-term labour, psoriasis, reperfusion injury,

CC septic shock, side effects of radiation therapy, temporal mandibular  
CC joint disease, sleep disturbance, uveitis, or an inflammatory condition  
CC resulting from strain, sprain, cartilage damage, trauma, orthopaedic  
CC surgery, infection or other disease processes.

XX

SQ Sequence 411 BP; 85 A; 124 C; 116 G; 86 T; 0 U; 0 Other;

Query Match 77.4%; Score 357.4; DB 12; Length 411;  
Best Local Similarity 94.1%; Pred. No. 5.7e-77;  
Matches 383; Conservative 0; Mismatches 21; Indels 3; Gaps 1;

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 CGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTC 404
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTC 407
```

#### RESULT 13

AAS62808

ID AAS62808 standard; cDNA; 1590 BP.

XX

AC AAS62808;

XX

DT 14-FEB-2002 (first entry)

XX

DE cDNA sequence #595 encoding novel human secreted protein.

XX

KW Human secreted protein; hyperproliferative disorder; autoimmune disorder;

KW immune deficiency disorder; blood disorder; inflammatory disorder;

KW infectious disorder; gene therapy; antimicrobial; hepatotropic;

KW immunosuppressive; antirheumatic; ss.

XX

OS Homo sapiens.

XX

PN WO200177291-A2.  
 XX  
 PD 18-OCT-2001.  
 XX  
 PF 29-MAR-2001; 2001WO-US010485.  
 XX  
 PR 06-APR-2000; 2000US-0195604P.  
 XX  
 PA (GEMY ) GENETICS INST INC.  
 XX  
 PI Wong GG, Clark HF, Fechtel K, Agostino MJ, Howes SH, Resnick RJ;  
 PI Gulukota K, Graham JR;  
 XX  
 DR WPI; 2002-010900/01.  
 XX  
 PT New polynucleotides encoding secreted proteins useful for treating e.g.  
 PT asthma, HIV and Crohn's disease.  
 XX  
 PS Claim 1; Page 375; 391pp; English.  
 XX  
 CC The present invention relates to the isolation of novel cDNA sequences  
 CC which encode human secreted proteins. The cDNA sequences have been  
 CC derived from a variety of human tissues. The invention also provides a  
 CC method for producing proteins from these polynucleotide sequences. The  
 CC proteins are useful for identifying compounds that modulate their  
 CC activity and production, and the cell is also useful for identifying  
 CC compounds that modulate expression of the polynucleotide sequences  
 CC encoding the secreted proteins. The sequences of the invention are useful  
 CC for treating diseases such as hyperproliferative disorders (e.g. cancer),  
 CC immune deficiency disorders (e.g. severe combined immunodeficiency  
 CC (SCID)), autoimmune disorders (e.g. multiple sclerosis), blood disorders  
 CC (e.g. thrombocytopaenia), inflammatory disorders (e.g. arthritis) and  
 CC infectious disorders (e.g. hepatitis). The polynucleotide sequences of  
 CC the invention are also useful in gene therapy. AAS62214-AAS62838  
 CC represent the cDNA sequences of the invention that encode for novel human  
 CC secreted proteins  
 XX  
 SQ Sequence 1590 BP; 346 A; 534 C; 427 G; 283 T; 0 U; 0 Other;

Query Match 77.2%; Score 356.6; DB 6; Length 1590;  
 Best Local Similarity 87.0%; Pred. No. 1.1e-76;  
 Matches 408; Conservative 0; Mismatches 49; Indels 12; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 51 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAGGGAGTCTGTGCCGAG 110  
 Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
 ||| |||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 111 GTGAAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGACTCTCTGACGATCTCC 170  
 Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 |||||||| ||||||||||||| | |||||||||| |||||||||||||  
 Db 171 TGTAAGGGCTCTGGATACAGCTTCCGAGTTACTGGATCGCTGGGTGCGCCAGATGCCC 230  
 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 ||||||||||||||||||||| |||| |||||||| |||||||| ||||



The present invention describes a method (M1) for producing a human antibody phage display library (I), comprising: (1) providing a nonhuman transgenic animal (II) whose genome comprises human immunoglobulin genes; (2) isolating nucleic acids encoding human antibody chains (III) from lymphatic cells; and (3) forming a library of display packages whose members comprise a nucleic acid encoding (III) which is displayed from the package. The method is used for producing a human antibody display library, e.g., a Fab phage display library. The display method may be used to screen nucleic acids encoding antibody chains obtained from immunised nonhuman transgenic animals, and from this a population of antibodies may be prepared. Production of a human monoclonal antibodies display library using this method means there is no need to immunise humans with antigens, and the difficulties faced with immortalising B cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056 represent sequences used in the exemplification of the present invention

Sequence 675 BP; 149 A; 216 C; 182 G; 128 T; 0 U; 0 Other;

Query Match 76.7%; Score 354.2; DB 4; Length 675;  
Best Local Similarity 93.0%; Pred. No. 3.7e-76;  
Matches 371; Conservative 0; Mismatches 28; Indels 0; Gaps 0;

QY 59 AGGTGCAGCTGGTGCAGTCTGGACCAGAGGTGAAAAAGCCCCGGGGAGTCTCTGAAGATCT 118

DE 2 AGGTGCAGCTGGTGCAGTCTGGGGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCT 61

Qy 119 CCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGC 178

Db 52 CCTGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGC 121

QY 179 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACA 238

Db 122 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATTCTGATGACTCTGTTACCAGATACA 181

QY 239 G C C C G T C C T T C C A A G G C C A G G T C A C C A T C T C A G C C G A C A A G T C C A T C A G C A C C G C C T A C C 298

Db 182 GCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTACC 241

QY 299 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAAC 358

db 242 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTACGAGAGATGGTC 301

Qy 359 TGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCCTCAGCCTCCACCA 418

Db 302 CCGAAGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCTTCAGCCTCCACCA 361

Qy 419 AGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 457

Db 362 AGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 400

AAH30061

ID AAH30061 standard; DNA; 675 BP.

XX

AC AAH30061;

XX  
 DT 19-JUL-2001 (first entry)  
 XX  
 DE TRO005 heavy chain nucleotide sequence 3E.3.  
 XX  
 KW Human; antibody; immunoglobulin; interleukin 8; IL8; immunogen;  
 KW human antibody phage display library; immunisation; transgenic animal;  
 KW ds.  
 XX  
 OS Homo sapiens.  
 OS Synthetic.  
 XX  
 PN WO200125492-A1.  
 XX  
 PD 12-APR-2001.  
 XX  
 PF 02-OCT-2000; 2000WO-US027237.  
 XX  
 PR 02-OCT-1999; 99US-0157415P.  
 PR 01-DEC-1999; 99US-00453234.  
 XX  
 PA (BIOS-) BIOSITE DIAGNOSTICS INC.  
 PA (GENP-) GENPHARM INT SUBSIDIARY OF MEDAREX INC.  
 XX  
 PI Buechler J, Valkirs G, Gray J, Lonberg N;  
 XX  
 DR WPI; 2001-335567/35.  
 XX  
 PT Producing a human antibody phage display library comprises providing a  
 PT transgenic animal whose genome comprises human immunoglobulin genes and  
 PT isolating nucleic acids encoding antibody chains from lymphatic cells.  
 XX  
 PS Example 37; Page 120; 161pp; English.  
 XX  
 CC The present invention describes a method (M1) for producing a human  
 CC antibody phage display library (I), comprising: (1) providing a nonhuman  
 CC transgenic animal (II) whose genome comprises human immunoglobulin genes;  
 CC (2) isolating nucleic acids encoding human antibody chains (III) from  
 CC lymphatic cells; and (3) forming a library of display packages whose  
 CC members comprise a nucleic acid encoding (III) which is displayed from  
 CC the package. The method is used for producing a human antibody display  
 CC library, e.g., a Fab phage display library. The display method may be  
 CC used to screen nucleic acids encoding antibody chains obtained from  
 CC immunised nonhuman transgenic animals, and from this a population of  
 CC antibodies may be prepared. Production of a human monoclonal antibodies  
 CC display library using this method means there is no need to immunise  
 CC humans with antigens, and the difficulties faced with immortalising B  
 CC cells are avoided. AAH29958 to AAH30066 and AAB74994 to AAB75056  
 CC represent sequences used in the exemplification of the present invention  
 XX  
 SQ Sequence 675 BP; 148 A; 217 C; 182 G; 128 T; 0 U; 0 Other;

Query Match 76.7%; Score 354.2; DB 4; Length 675;  
 Best Local Similarity 93.0%; Pred. No. 3.7e-76;  
 Matches 371; Conservative 0; Mismatches 28; Indels 0; Gaps 0;

Qy 59 AGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCT 118



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      |||
Db      2  AGGTGCAGCTGGTGCAGTCTGGGGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCT 61
Qy      119 CCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGC 178
      |||
Db      62  CCTGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGC 121
Qy      179 CCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCACATACA 238
      |||
Db      122 CCGGGAAAGGCCTGGAGTGGATGGGGTTTCATCTATTCTGATGACTCTGTTACCAGATACA 181
Qy      239 GCCCGTCCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACC 298
      |||
Db      182 GCCCGTCCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTACC 241
Qy      299 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAAC 358
      |||
Db      242 TGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTACGAGAGATGGTC 301
Qy      359 TGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCCACCA 418
      |||
Db      302 CCGAAGCTTTTGATATCTGGGGCCAAGGGACAATGGTCACCGTCTCCTCAGCCTCCACCA 361
Qy      419 AGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      362 AGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 400

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Search completed: December 2, 2004, 13:05:58  
Job time : 360.717 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 67.4772 Seconds  
(without alignments)  
4866.596 Million cell updates/sec

Title: US-08-728-463B-207  
Perfect score: 462  
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCCCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : Issued\_Patents\_NA:\*

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- 2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*
- 3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*
- 4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*
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- 6: /cgn2\_6/ptodata/1/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	% Match	Query Length	DB	ID	Description
1	462	100.0	462	3	US-09-042-353-359	Sequence 359, App
2	462	100.0	462	3	US-08-758-417A-207	Sequence 207, App
3	335.6	72.6	414	3	US-09-042-353-353	Sequence 353, App
4	335.6	72.6	414	3	US-08-758-417A-201	Sequence 201, App
5	330	71.4	477	3	US-08-724-752-16	Sequence 16, Appl
6	330	71.4	477	4	US-09-614-092A-16	Sequence 16, Appl
7	326.2	70.6	357	1	US-08-053-131-156	Sequence 156, App
8	326.2	70.6	357	1	US-08-096-762-156	Sequence 156, App
9	320	69.3	361	1	US-08-053-131-177	Sequence 177, App
10	320	69.3	361	1	US-08-096-762-177	Sequence 177, App
11	315.6	68.3	348	1	US-08-053-131-157	Sequence 157, App
12	315.6	68.3	348	1	US-08-096-762-157	Sequence 157, App
13	314.8	68.1	352	1	US-08-053-131-175	Sequence 175, App
14	314.8	68.1	352	1	US-08-096-762-175	Sequence 175, App
15	313.8	67.9	370	1	US-08-053-131-173	Sequence 173, App
16	313.8	67.9	370	1	US-08-096-762-173	Sequence 173, App
17	312.4	67.6	348	1	US-08-053-131-160	Sequence 160, App
18	312.4	67.6	348	1	US-08-096-762-160	Sequence 160, App
19	312.4	67.6	349	1	US-08-053-131-165	Sequence 165, App
20	312.4	67.6	349	1	US-08-096-762-165	Sequence 165, App
21	312.4	67.6	358	1	US-08-053-131-172	Sequence 172, App
22	312.4	67.6	358	1	US-08-096-762-172	Sequence 172, App
23	312	67.5	362	1	US-08-053-131-170	Sequence 170, App
24	312	67.5	362	1	US-08-096-762-170	Sequence 170, App
25	308.6	66.8	360	1	US-08-053-131-169	Sequence 169, App
26	308.6	66.8	360	1	US-08-096-762-169	Sequence 169, App
27	305.4	66.1	700	3	US-08-545-809A-51	Sequence 51, Appl
28	304.8	66.0	345	1	US-08-053-131-158	Sequence 158, App
29	304.8	66.0	345	1	US-08-096-762-158	Sequence 158, App
30	304	65.8	360	1	US-08-053-131-161	Sequence 161, App
31	304	65.8	360	1	US-08-096-762-161	Sequence 161, App
32	303	65.6	458	4	US-09-513-999C-3725	Sequence 3725, Ap
33	302.4	65.5	358	1	US-08-053-131-174	Sequence 174, App
34	302.4	65.5	358	1	US-08-096-762-174	Sequence 174, App
35	302.2	65.4	361	1	US-08-053-131-171	Sequence 171, App
36	302.2	65.4	361	1	US-08-096-762-171	Sequence 171, App
37	301.8	65.3	441	1	US-08-259-372A-7	Sequence 7, Appli
38	301.8	65.3	441	1	US-08-468-671-7	Sequence 7, Appli

39	301.2	65.2	366	1	US-08-053-131-163	Sequence 163, App
40	301.2	65.2	366	1	US-08-096-762-163	Sequence 163, App
41	300.6	65.1	357	1	US-08-053-131-159	Sequence 159, App
42	300.6	65.1	357	1	US-08-096-762-159	Sequence 159, App
43	296	64.1	429	4	US-09-513-999C-40	Sequence 40, Appl
44	293.2	63.5	325	1	US-08-053-131-162	Sequence 162, App
45	293.2	63.5	325	1	US-08-096-762-162	Sequence 162, App

#### ALIGNMENTS

#### RESULT 1

US-09-042-353-359

; Sequence 359, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

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; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 359:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-359

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Query Match      100.0%; Score 462; DB 3; Length 462;
Best Local Similarity 100.0%; Pred. No. 4.8e-117;
Matches 462; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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Db     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

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Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 |||  
 Db 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 |||  
 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 |||  
 Db 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 |||  
 Qy 241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 |||  
 Db 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 |||  
 Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420  
 |||  
 Db 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420  
 |||  
 Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462  
 |||  
 Db 421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462  
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RESULT 2

US-08-758-417A-207

; Sequence 207, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for  
 ; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322

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; FILING DATE: 07-DEC-1994
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Serafini, Andrew T.
; REGISTRATION NUMBER: 41,303
; REFERENCE/DOCKET NUMBER: 014643-009030US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 207:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 462 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 207:
US-08-758-417A-207

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Query Match          100.0%;  Score 462;  DB 3;  Length 462;
Best Local Similarity 100.0%;  Pred. No. 4.8e-117;
Matches 462;  Conservative 0;  Mismatches 0;  Indels 0;  Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCACTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     61 GTGCAGCTGGTGCACTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360

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Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
Qy      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
Db      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420
Qy      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462
Db      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGAAGCTT 462

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RESULT 3

US-09-042-353-353

; Sequence 353, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408

; FILING DATE: 18-MAR-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/904,068

; FILING DATE: 23-JUN-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/053,131

; FILING DATE: 26-APR-1993

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/096,762

; FILING DATE: 22-JUL-1993

; PRIOR APPLICATION DATA:

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; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/165,699
; FILING DATE: 10-DEC-1993
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/209,741
; FILING DATE: 09-MAR-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/352,322
; FILING DATE: 07-DEC-1994
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/544,404
; FILING DATE: 10-OCT-1995
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/728,463
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US96/16433
; FILING DATE: 10-OCT-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 08/758,417
; FILING DATE: 02-DEC-1996
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: WO PCT/US97/21803
; FILING DATE: 01-DEC-1997
; ATTORNEY/AGENT INFORMATION:
; NAME: Apple, Randolph T.
; REGISTRATION NUMBER: 36,429
; REFERENCE/DOCKET NUMBER: 014643-009040US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 353:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 414 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
US-09-042-353-353

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Query Match          72.6%;  Score 335.6;  DB 3;  Length 414;
Best Local Similarity 91.3%;  Pred. No. 1.6e-82;
Matches 369;  Conservative 0;  Mismatches 29;  Indels 6;  Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      10 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 69

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db      70 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 129

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Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180  
 |||  
 Db 130 TGTAAGGGTTCTGGATACAGCTTTACAGTTACTGGATCGCCTGGGTGCGCCAGATGCCC 189  
 |||  
 Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 |||  
 Db 190 GGGAAAGGCCTGGAGTGGATGGGGATCATCGATCCTGCTGACTCTGATACCAGATACAAC 249  
 |||  
 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 250 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGTACCGCCTATTTG 309  
 |||  
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354  
 |||  
 Db 310 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCAGCGAAC 369  
 |||  
 Qy 355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCAC 398  
 |||  
 Db 370 TGGAAGTGGTACTTCGTTCTCTGGGGCCGTGGCAACCTGGTCAC 413  
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#### RESULT 4

US-08-758-417A-201

; Sequence 201, Application US/08758417A

; Patent No. 6300129

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for  
 ; Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 417

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/758,417A

; FILING DATE: 02-Dec-1996

; CLASSIFICATION: <Unknown>

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 08/728,463

; FILING DATE: 10-OCT-1996

; APPLICATION NUMBER: US 08/544,404

; FILING DATE: 10-OCT-1995

; APPLICATION NUMBER: US 08/352,322

; FILING DATE: 07-DEC-1994

; APPLICATION NUMBER: US 08/209,741

; FILING DATE: 09-MAR-1994

; APPLICATION NUMBER: US 08/165,699

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;
; FILING DATE: 10-DEC-1993
; APPLICATION NUMBER: US 08/161,739
; FILING DATE: 03-DEC-1993
; APPLICATION NUMBER: US 08/155,301
; FILING DATE: 18-NOV-1993
; APPLICATION NUMBER: US 08/096,762
; FILING DATE: 22-JUL-1993
; APPLICATION NUMBER: US 08/053,131
; FILING DATE: 26-APR-1993
; APPLICATION NUMBER: US 07/990,860 .
; FILING DATE: 16-DEC-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Serafini, Andrew T.
; REGISTRATION NUMBER: 41,303
; REFERENCE/DOCKET NUMBER: 014643-009030US
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (415) 576-0200
; TELEFAX: (415) 576-0300
; INFORMATION FOR SEQ ID NO: 201:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 414 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA
; SEQUENCE DESCRIPTION: SEQ ID NO: 201:
US-08-758-417A-201

```

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Query Match          72.6%;  Score 335.6;  DB 3;  Length 414;
Best Local Similarity 91.3%;  Pred. No. 1.6e-82;
Matches 369;  Conservative 0;  Mismatches 29;  Indels 6;  Gaps 1;

```

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     10 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 69

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     70 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 129

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      ||||||||||||||||||||||||||||| ||||||| ||||||| |||||||
Db    130 TGTAAGGGTTCTGGATACAGCTTTACCACTTACTGGATCGCCTGGGTGCGCCAGATGCCC 189

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      ||||||||||||||||||||||||||||| ||||||| ||||||| |||||||
Db    190 GGGAAAGGCCTGGAGTGGATGGGGATCATCGATCCTGCTGACTCTGATACCAGATACAAC 249

Qy    241 CCGTCCTTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      ||||||||||||||||||||||||||||| ||||||| ||||||| ||
Db    250 CCGTCCTTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGTACCGCCTATTTG 309

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      ||||||||||||||||||||||||||||| ||||||| ||||||| ||
Db    310 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACCAGCGAAC 369

Qy    355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAC 398

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Db

370 TGGAAGTGGTACTTCGTTCTCTGCGGCCGTGGCACCTGGTCAC 413

RESULT 5

US-08-724-752-16

; Sequence 16, Application US/08724752

; Patent No. 6150584

; GENERAL INFORMATION:

; APPLICANT: Kucherlapati, Raju

; APPLICANT: Jakobovits, Aya

; APPLICANT: Brenner, Daniel G.

; APPLICANT: Capon, Daniel J.

; APPLICANT: Klaphoz, Sue

; TITLE OF INVENTION: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED

; TITLE OF INVENTION: XENOMICE

; NUMBER OF SEQUENCES: 21

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: FISH & NEAVE

; STREET: 1251 Avenue of the Americas

; CITY: New York

; STATE: New York

; COUNTRY: USA

; ZIP: 10020

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/724,752

; FILING DATE: 02-DEC-1996

; CLASSIFICATION: 536

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: PCT/US96/05928

; FILING DATE: 29-APR-1996

; ATTORNEY/AGENT INFORMATION:

; NAME: Haley Jr., James F.

; REGISTRATION NUMBER: 27,794

; REFERENCE/DOCKET NUMBER: Cell 4.17

; TELECOMMUNICATION INFORMATION:

; TELEPHONE: 212-596-9000

; TELEFAX: 212-596-9090

; INFORMATION FOR SEQ ID NO: 16:

; SEQUENCE CHARACTERISTICS:

; LENGTH: 477 base pairs

; TYPE: nucleic acid

; STRANDEDNESS: single

; TOPOLOGY: linear

; MOLECULE TYPE: DNA

US-08-724-752-16

Query Match 71.4%; Score 330; DB 3; Length 477;

Best Local Similarity 95.8%; Pred. No. 5.6e-81;

Matches 339; Conservative 0; Mismatches 15; Indels 0; Gaps 0;

Qy

104 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCT 163

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Db      1 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCT 60
Qy      164 GGGTGC GCCAGATGCCCCGGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 223
Db      61 GGGTGC GCCAGATGCCCCGGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 120
Qy      224 CTGATACCACATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 283
Db      121 CTGATACCAGATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 180
Qy      284 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 343
Db      181 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 240
Qy      344 GTGCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCT 403
Db      241 GTGCGAGACAGGACGGTGACTCCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCT 300
Qy      404 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
Db      301 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 354

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# RESULT 6

US-09-614-092A-16

; Sequence 16, Application US/09614092A

; Patent No. 6713610

; GENERAL INFORMATION:

; APPLICANT: KUCHERLAPATI, RAJU

; APPLICANT: JAKABOVITS, AYA

; APPLICANT: BRENNER, DANIEL G.

; APPLICANT: CAPON, DANIEL J.

; APPLICANT: KLAPHOLZ, SUE

; TITLE OF INVENTION: HUMAN ANTIBODIES DERIVED FROM IMMUNIZED XENOMICE

; FILE REFERENCE: Cell 4.17 DIV2

; CURRENT APPLICATION NUMBER: US/09/614,092A

; CURRENT FILING DATE: 2000-07-11

; PRIOR APPLICATION NUMBER: 08/724,752

; PRIOR FILING DATE: 1996-10-02

; PRIOR APPLICATION NUMBER: 08/430,938

; PRIOR FILING DATE: 1995-04-27

; PRIOR APPLICATION NUMBER: 08/234,145

; PRIOR FILING DATE: 1994-04-28

; PRIOR APPLICATION NUMBER: 08/112,848

; PRIOR FILING DATE: 1993-08-27

; PRIOR APPLICATION NUMBER: 08/031,801

; PRIOR FILING DATE: 1993-03-15

; PRIOR APPLICATION NUMBER: 07/919,297

; PRIOR FILING DATE: 1992-07-24

; PRIOR APPLICATION NUMBER: 07/610,515

; PRIOR FILING DATE: 1990-11-08

; PRIOR APPLICATION NUMBER: 07/466,008

; PRIOR FILING DATE: 1990-01-12

; PRIOR APPLICATION NUMBER: PCT/US96/05928

; PRIOR FILING DATE: 1996-04-29

; NUMBER OF SEQ ID NOS: 21

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; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 16
; LENGTH: 477
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Description of Artificial Sequence: Heavy chain
; OTHER INFORMATION: anti-IL-8 antibody K4.3
US-09-614-092A-16
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Query Match          71.4%; Score 330; DB 4; Length 477;
Best Local Similarity 95.8%; Pred. No. 5.6e-81;
Matches 339; Conservative 0; Mismatches 15; Indels 0; Gaps 0;
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Qy      104 AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCT 163
          |||
Db       1  AGTCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCT 60

Qy      164 GGGTGC GCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 223
          |||
Db       61 GGGTGC GCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACT 120

Qy      224 CTGATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 283
          |||
Db      121 CTGATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCA 180

Qy      284 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 343
          |||
Db      181 TCAGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACT 240

Qy      344 GTGCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCT 403
          |||
Db      241 GTGCGAGACAGGACGGTGACTCCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCT 300

Qy      404 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 457
          |||
Db      301 CCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 354
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# RESULT 7

US-08-053-131-156

; Sequence 156, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

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; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: PatentIn Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/053,131
; FILING DATE: 26-APR-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 156:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 357 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-156

```

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Query Match          70.6%; Score 326.2; DB 1; Length 357;
Best Local Similarity 96.9%; Pred. No. 5.6e-80;
Matches 344; Conservative 0; Mismatches 8; Indels 3; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
        |||
Db      1   TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
        |||
Db      61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      225 GATACCACATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
        |||
Db      121 GATACCAGATACAGCCCGTCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
        |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGA---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
        |||
Db      241 GCGAGACATGAGCTAACTGGCCTCTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTC 300

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; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: DNA (genomic)  
US-08-096-762-156

Query Match 70.6%; Score 326.2; DB 1; Length 357;  
Best Local Similarity 96.9%; Pred. No. 5.6e-80;  
Matches 344; Conservative 0; Mismatches 8; Indels 3; Gaps 1;

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QY      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
          |||
Db       1 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 60

QY      166 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db       61 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

QY      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

QY      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

QY      346 GCGAGA---GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
          |||
Db     241 GCGAGACATGAGCTAACTGGCCTCTTTAACTACTGGGGCCAGGGAACCCTGGTCACCGTC 300

QY      403 TCCTCAGCCTCCACCAAGGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db     301 TCCTCAGCCTCCACCAAGGGGCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 355
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RESULT 9

US-08-053-131-177

; Sequence 177, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:



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; APPLICATION NUMBER: US/08/053,131
; FILING DATE: 26-APR-1993
; CLASSIFICATION: 800
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/990,860
; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 177:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 361 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-177

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Query Match          69.3%; Score 320; DB 1; Length 361;
Best Local Similarity 96.3%; Pred. No. 2.8e-78;
Matches 339; Conservative 0; Mismatches 10; Indels 3; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
        |||
Db      1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
        |||
Db      61 GTGCGCCAGATGCCCGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
        |||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
        |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
        |||
Db      241 GCGAGGG---GATCGTGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 297

Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||
Db      298 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 349

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RESULT 10

US-08-096-762-177

; Sequence 177, Application US/08096762  
; Patent No. 5814318  
; GENERAL INFORMATION:  
; APPLICANT: Lonberg, Nils  
; APPLICANT: Kay, Robert M.  
; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for  
; TITLE OF INVENTION: Producing Heterologous Antibodies  
; NUMBER OF SEQUENCES: 210  
; CORRESPONDENCE ADDRESS:  
; ADDRESSEE: Townsend and Townsend Khourie and Crew  
; STREET: One Market Plaza, Steuart Tower, Suite 200  
; CITY: San Francisco  
; STATE: California  
; COUNTRY: USA  
; ZIP: 94105  
; COMPUTER READABLE FORM:  
; MEDIUM TYPE: Floppy disk  
; COMPUTER: IBM PC compatible  
; OPERATING SYSTEM: PC-DOS/MS-DOS  
; SOFTWARE: PatentIn Release #1.0, Version #1.25  
; CURRENT APPLICATION DATA:  
; APPLICATION NUMBER: US/08/096,762  
; FILING DATE: 22-JUL-1993  
; CLASSIFICATION: 800  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/053,131  
; FILING DATE: 26-APR-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/990,860  
; FILING DATE: 16-DEC-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/904,068  
; FILING DATE: 23-JUN-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/853,408  
; FILING DATE: 18-MAR-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/810,279  
; FILING DATE: 17-DEC-1991  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Smith, William M.  
; REGISTRATION NUMBER: 30,223  
; REFERENCE/DOCKET NUMBER: 14643-9-4  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: 415-326-2400  
; TELEFAX: 415-326-2422  
; INFORMATION FOR SEQ ID NO: 177:  
; SEQUENCE CHARACTERISTICS:  
; LENGTH: 361 base pairs  
; TYPE: nucleic acid  
; STRANDEDNESS: single  
; TOPOLOGY: linear  
; MOLECULE TYPE: DNA (genomic)  
US-08-096-762-177

Query Match 69.3%; Score 320; DB 1; Length 361;  
 Best Local Similarity 96.3%; Pred. No. 2.8e-78;  
 Matches 339; Conservative 0; Mismatches 10; Indels 3; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
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Db      1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db      61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
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Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db      181 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
          |||
Db      241 GCGAGGG---GATCGTGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 297

Qy      405 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db      298 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 349
  
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RESULT 11

US-08-053-131-157

; Sequence 157, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Kourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/053,131

; FILING DATE: 26-APR-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

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; FILING DATE: 16-DEC-1992
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/810,279
; FILING DATE: 17-DEC-1991
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/853,408
; FILING DATE: 18-MAR-1992
; ATTORNEY/AGENT INFORMATION:
; NAME: Smith, William M.
; REGISTRATION NUMBER: 30,223
; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 157:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 348 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-157

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Query Match          68.3%; Score 315.6; DB 1; Length 348;
Best Local Similarity 95.7%; Pred. No. 4.4e-77;
Matches 337; Conservative 0; Mismatches 9; Indels 6; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
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Db       1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db       61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          ||||||| ||||||||||||||||||||||||||||||||||||||||||||||||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCC 405
          ||||||| || ||||||||||||||||||||||||||||||||||||||||||||
Db      241 GCGAGACATC-----TTTACTTTGACTACTGGGGCCAGGGAACCCAGGTCACCGTCTCC 294

Qy      406 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      295 TCAGCCTCCACCAAGGGCCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 346

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RESULT 12

US-08-096-762-157

; Sequence 157, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils  
 ; APPLICANT: Kay, Robert M.  
 ; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for  
 ; TITLE OF INVENTION: Producing Heterologous Antibodies  
 ; NUMBER OF SEQUENCES: 210  
 ; CORRESPONDENCE ADDRESS:  
 ; ADDRESSEE: Townsend and Townsend Kourie and Crew  
 ; STREET: One Market Plaza, Steuart Tower, Suite 200  
 ; CITY: San Francisco  
 ; STATE: California  
 ; COUNTRY: USA  
 ; ZIP: 94105  
 ; COMPUTER READABLE FORM:  
 ; MEDIUM TYPE: Floppy disk  
 ; COMPUTER: IBM PC compatible  
 ; OPERATING SYSTEM: PC-DOS/MS-DOS  
 ; SOFTWARE: PatentIn Release #1.0, Version #1.25  
 ; CURRENT APPLICATION DATA:  
 ; APPLICATION NUMBER: US/08/096,762  
 ; FILING DATE: 22-JUL-1993  
 ; CLASSIFICATION: 800  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 08/053,131  
 ; FILING DATE: 26-APR-1993  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 07/990,860  
 ; FILING DATE: 16-DEC-1992  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 07/904,068  
 ; FILING DATE: 23-JUN-1992  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 07/853,408  
 ; FILING DATE: 18-MAR-1992  
 ; PRIOR APPLICATION DATA:  
 ; APPLICATION NUMBER: US 07/810,279  
 ; FILING DATE: 17-DEC-1991  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Smith, William M.  
 ; REGISTRATION NUMBER: 30,223  
 ; REFERENCE/DOCKET NUMBER: 14643-9-4  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: 415-326-2400  
 ; TELEFAX: 415-326-2422  
 ; INFORMATION FOR SEQ ID NO: 157:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 348 base pairs  
 ; TYPE: nucleic acid  
 ; STRANDEDNESS: single  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: DNA (genomic)  
 US-08-096-762-157

Query Match 68.3%; Score 315.6; DB 1; Length 348;  
 Best Local Similarity 95.7%; Pred. No. 4.4e-77;  
 Matches 337; Conservative 0; Mismatches 9; Indels 6; Gaps 1;

Qy

106 TCTCTGAAGATCTCTGTAAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165

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Db      1  TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCAGCTACTGGATCGGCTGG 60
Qy      166 GTGCGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
Db      61  GTGCGCCAGATGCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120
Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180
Qy      286 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
Db      181 AGCACC GCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240
Qy      346 GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCC 405
Db      241 GCGAGACATC-----TTTACTTTGACTACTGGGGCCAGGGAACCCAGGTCACCGTCTCC 294
Qy      406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
Db      295 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 346

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RESULT 13

US-08-053-131-175

; Sequence 175, Application US/08053131

; Patent No. 5661016

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5661016-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 197

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend Khourie and Crew

; STREET: One Market Plaza, Steuart Tower, Suite 200

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94105

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.25

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/08/053,131

; FILING DATE: 26-APR-1993

; CLASSIFICATION: 800

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/990,860

; FILING DATE: 16-DEC-1992

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/810,279

; FILING DATE: 17-DEC-1991

; PRIOR APPLICATION DATA:

; APPLICATION NUMBER: US 07/853,408  
 ; FILING DATE: 18-MAR-1992  
 ; ATTORNEY/AGENT INFORMATION:  
 ; NAME: Smith, William M.  
 ; REGISTRATION NUMBER: 30,223  
 ; REFERENCE/DOCKET NUMBER: 14643-9-3  
 ; TELECOMMUNICATION INFORMATION:  
 ; TELEPHONE: 415-326-2400  
 ; TELEFAX: 415-326-2422  
 ; INFORMATION FOR SEQ ID NO: 175:  
 ; SEQUENCE CHARACTERISTICS:  
 ; LENGTH: 352 base pairs  
 ; TYPE: nucleic acid  
 ; STRANDEDNESS: single  
 ; TOPOLOGY: linear  
 ; MOLECULE TYPE: DNA (genomic)  
 US-08-053-131-175

Query Match 68.1%; Score 314.8; DB 1; Length 352;  
 Best Local Similarity 95.5%; Pred. No. 7.3e-77;  
 Matches 336; Conservative 0; Mismatches 12; Indels 4; Gaps 1;

Qy	106	TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG	165
Db	1	TCTCTGAAGATCTCCTGTAAGGTTTCTGGATACAGCTTAACCAGTTATTGGATCGGCTGG	60
Qy	166	GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT	225
Db	61	GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT	120
Qy	226	GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC	285
Db	121	GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC	180
Qy	286	AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT	345
Db	181	AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT	240
Qy	346	GCGAGAGACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	405
Db	241	GCGAGA---CAAAGGGGTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	296
Qy	406	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	297	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	348

RESULT 14

US-08-096-762-175

; Sequence 175, Application US/08096762

; Patent No. 5814318

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 5814318-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 210







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; REFERENCE/DOCKET NUMBER: 14643-9-3
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 415-326-2400
; TELEFAX: 415-326-2422
; INFORMATION FOR SEQ ID NO: 173:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 370 base pairs
; TYPE: nucleic acid
; STRANDEDNESS: single
; TOPOLOGY: linear
; MOLECULE TYPE: DNA (genomic)
US-08-053-131-173

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Query Match          67.9%; Score 313.8; DB 1; Length 370;
Best Local Similarity 94.2%; Pred. No. 1.4e-76;
Matches 340; Conservative 0; Mismatches 12; Indels 9; Gaps 1;

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Qy      106 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGG 165
          |||
Db       1 TCTCTGAAGATCTCCTGTAAGGGTTCTGGATACAGCTTTCCCATCTACTGGATCGGCTGG 60

Qy      166 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 225
          |||
Db       61 GTGCGCCAGATGCCCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCT 120

Qy      226 GATACCACATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 285
          |||
Db      121 GATACCAGATACAGCCCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATC 180

Qy      286 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 345
          |||
Db      181 AGCACCGCCTACCTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGT 240

Qy      346 GCGAGAGACCAACTGGGCCT-----CTTTGACTACTGGGGCCAGGGAACCCTGGTC 396
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Db      241 GCGAGAGTGGTTTCGGGGATTTATTATTTACTTTGACTACTGGGGCCAGGGAACCCTGGTC 300

Qy      397 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 456
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Qy      457 A 457
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Db      361 A 361

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Job time : 68.4772 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 17:01:26 ; Search time 354.212 Seconds  
(without alignments)

7166.911 Million cell updates/sec

Title: US-08-728-463B-207  
Perfect score: 462  
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

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Gapop 10.0 , Gapext 1.0

Searched: 3694831 seqs, 2747406616 residues

Total number of hits satisfying chosen parameters: 7389662

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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9: /cgn2\_6/ptodata/1/pubpna/US09A\_PUBCOMB.seq:\*  
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11: /cgn2\_6/ptodata/1/pubpna/US09C\_PUBCOMB.seq:\*  
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19: /cgn2\_6/ptodata/1/pubpna/US11\_NEW\_PUB.seq:\*  
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21: /cgn2\_6/ptodata/1/pubpna/US60\_PUBCOMB.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

		%					Description
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1	417	90.3	7558	16	US-10-395-894-5	Sequence 5, Appli	
2	417	90.3	7558	17	US-10-695-667-5	Sequence 5, Appli	
3	413.8	89.6	469	16	US-10-395-894-26	Sequence 26, Appl	
4	413.8	89.6	469	17	US-10-695-667-26	Sequence 26, Appl	
5	404	87.4	1401	16	US-10-656-769-31	Sequence 31, Appl	

6	399.2	86.4	1389	16	US-10-656-769-33	Sequence 33, Appl
7	392.8	85.0	1392	16	US-10-656-769-35	Sequence 35, Appl
8	363.8	78.7	1612	15	US-10-291-265-48	Sequence 48, Appl
9	357.4	77.4	411	16	US-10-656-769-15	Sequence 15, Appl
10	356.6	77.2	1590	9	US-09-822-830A-595	Sequence 595, App
11	347.2	75.2	441	10	US-09-918-995-16482	Sequence 16482, A
12	345.6	74.8	1576	9	US-09-822-830A-507	Sequence 507, App
13	345.2	74.7	390	15	US-10-226-615-1	Sequence 1, Appli
14	345.2	74.7	390	15	US-10-374-932-1	Sequence 1, Appli
15	345.2	74.7	390	16	US-10-379-741-1	Sequence 1, Appli
c 16	344	74.5	905	15	US-10-002-631C-113	Sequence 113, App
17	327	70.8	421	9	US-09-905-243-6	Sequence 6, Appli
18	320.4	69.4	560	17	US-10-665-383-75	Sequence 75, Appl
19	316	68.4	1572	9	US-09-822-830A-604	Sequence 604, App
20	314.2	68.0	348	10	US-09-851-614-3	Sequence 3, Appli
21	314.2	68.0	348	14	US-10-035-637-3	Sequence 3, Appli
22	313.8	67.9	417	9	US-09-905-243-39	Sequence 39, Appl
23	312.6	67.7	1524	9	US-09-822-849A-136	Sequence 136, App
24	307	66.5	200000	17	US-10-672-764A-31	Sequence 31, Appl
25	304.4	65.9	354	15	US-10-181-324-1	Sequence 1, Appli
26	304	65.8	985	14	US-10-161-803-42	Sequence 42, Appl
27	304	65.8	997	14	US-10-161-803-43	Sequence 43, Appl
28	303.6	65.7	427	9	US-09-905-243-3	Sequence 3, Appli
29	302.6	65.5	514	17	US-10-665-383-79	Sequence 79, Appl
30	297.4	64.4	369	15	US-10-173-551-3	Sequence 3, Appli
31	295.8	64.0	379	15	US-10-041-860-65	Sequence 65, Appl
32	295.8	64.0	379	17	US-10-665-383-25	Sequence 25, Appl
33	292.6	63.3	379	15	US-10-041-860-69	Sequence 69, Appl
34	292.6	63.3	379	15	US-10-041-860-77	Sequence 77, Appl
35	292.6	63.3	379	17	US-10-665-383-33	Sequence 33, Appl
36	292.6	63.3	379	17	US-10-665-383-49	Sequence 49, Appl
37	289	62.6	388	15	US-10-041-860-71	Sequence 71, Appl
38	289	62.6	388	17	US-10-665-383-37	Sequence 37, Appl
39	287.8	62.3	379	15	US-10-041-860-88	Sequence 88, Appl
40	287.8	62.3	379	17	US-10-665-383-69	Sequence 69, Appl
41	284.4	61.6	329	9	US-09-810-936-251	Sequence 251, App
42	284.4	61.6	329	9	US-09-429-755-251	Sequence 251, App
43	284.4	61.6	329	9	US-09-924-400-251	Sequence 251, App
44	284.4	61.6	329	15	US-10-212-679-251	Sequence 251, App
45	284.4	61.6	329	16	US-10-079-137B-251	Sequence 251, App

#### ALIGNMENTS

#### RESULT 1

US-10-395-894-5

; Sequence 5, Application US/10395894

; Publication No. US20040033229A1

; GENERAL INFORMATION:

; APPLICANT: MADDON, Paul J.

; APPLICANT: DONOVAN, Gerald P.

; APPLICANT: OLSON, William C.

; APPLICANT: SCHSLKE, No. US20040033229Albert

; APPLICANT: GARDNER, Jason

; APPLICANT: MA, Dangshe

; TITLE OF INVENTION: PSMA ANTIBODIES AND PROTEIN MULTIMERS

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; FILE REFERENCE: P00741.70005.US
; CURRENT APPLICATION NUMBER: US/10/395,894
; CURRENT FILING DATE: 2003-03-24
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 5
; LENGTH: 7558
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Plasmid
US-10-395-894-5

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Query Match          90.3%; Score 417; DB 16; Length 7558;
Best Local Similarity 95.5%; Pred. No. 1.8e-111;
Matches 442; Conservative 0; Mismatches 15; Indels 6; Gaps 1;

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Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
          |||
Db     963 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 1042

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Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
          |||
Db    1103 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 1162

Qy     241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
          |||
Db    1163 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 1222

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
          |||
Db    1223 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 1282

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
          |||
Db    1283 GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 1342

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db    1343 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCTAGCAAGA 1385

```

RESULT 2

US-10-695-667-5

; Sequence 5, Application US/10695667  
 ; Publication No. US20040161776A1  
 ; GENERAL INFORMATION:  
 ; APPLICANT: MADDON, Paul J.  
 ; APPLICANT: DONOVAN, Gerald P.  
 ; APPLICANT: OLSON, William C.  
 ; APPLICANT: SCHSLKE, Norbert  
 ; APPLICANT: GARDNER, Jason  
 ; APPLICANT: MA, Dangshe  
 ; TITLE OF INVENTION: PSMA FORMULATIONS AND USES THEREOF  
 ; FILE REFERENCE: P0741.70006US00  
 ; CURRENT APPLICATION NUMBER: US/10/695,667  
 ; CURRENT FILING DATE: 2003-10-27  
 ; PRIOR APPLICATION NUMBER: US 10/395,894  
 ; PRIOR FILING DATE: 2003-03-21  
 ; PRIOR APPLICATION NUMBER: PCT/US02/33944  
 ; PRIOR FILING DATE: 2002-10-23  
 ; PRIOR APPLICATION NUMBER: US 60/335,215  
 ; PRIOR FILING DATE: 2001-10-23  
 ; PRIOR APPLICATION NUMBER: US 60/362,747  
 ; PRIOR FILING DATE: 2002-03-07  
 ; PRIOR APPLICATION NUMBER: US 60/412,618  
 ; PRIOR FILING DATE: 2002-09-20  
 ; NUMBER OF SEQ ID NOS: 33  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 5  
 ; LENGTH: 7558  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Plasmid

US-10-695-667-5

Query Match 90.3%; Score 417; DB 17; Length 7558;  
 Best Local Similarity 95.5%; Pred. No. 1.8e-111;  
 Matches 442; Conservative 0; Mismatches 15; Indels 6; Gaps 1;

QY	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	923	ATGGGGTCAACCGTCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	982
QY	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	983	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	1042
QY	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	1043	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	1102
QY	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	1103	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC	1162
QY	241	CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300

```

Db      1163  |||||
          CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 1222

Qy      301  CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
          |||||

Db      1223  CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 1282

Qy      355  CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
          |  ||||

Db      1283  GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 1342

Qy      415  ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCCTCCAAGA 457
          |||||

Db      1343  ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCTCTAGCAAGA 1385

```

# RESULT 3

US-10-395-894-26

```

; Sequence 26, Application US/10395894
; Publication No. US20040033229A1
; GENERAL INFORMATION:
; APPLICANT: MADDON, Paul J.
; APPLICANT: DONOVAN, Gerald P.
; APPLICANT: OLSON, William C.
; APPLICANT: SCHSLKE, No. US20040033229Albert
; APPLICANT: GARDNER, Jason
; APPLICANT: MA, Dangshe
; TITLE OF INVENTION: PSMA ANTIBODIES AND PROTEIN MULTIMERS
; FILE REFERENCE: P00741.70005.US
; CURRENT APPLICATION NUMBER: US/10/395,894
; CURRENT FILING DATE: 2003-03-24
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20
; NUMBER OF SEQ ID NOS: 33
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 26
; LENGTH: 469
; TYPE: DNA
; ORGANISM: Artificial Sequence
; FEATURE:
; OTHER INFORMATION: Includes BamHI/BglII cloning junction, signal peptide, V
region, portion
; OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light)
cloning junction
US-10-395-894-26

```

```

Query Match      89.6%; Score 413.8; DB 16; Length 469;
Best Local Similarity 96.0%; Pred. No. 1.2e-110;
Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

```

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

```

Db      11  |||||ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 70
Qy      61  GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
Db      71  |||||GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130
Qy     121  TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
Db     131  |||||TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 190
Qy     181  GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
Db     191  |||||GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 250
Qy     241  CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
Db     251  |||||CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 310
Qy     301  CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
Db     311  |||||CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 370
Qy     355  CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
Db     371  |||||GCAGCTGGCCCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 430
Qy     415  ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 449
Db     431  |||||ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 465

```

#### RESULT 4

US-10-695-667-26

```

; Sequence 26, Application US/10695667
; Publication No. US20040161776A1
; GENERAL INFORMATION:
; APPLICANT: MADDON, Paul J.
; APPLICANT: DONOVAN, Gerald P.
; APPLICANT: OLSON, William C.
; APPLICANT: SCHSLKE, Norbert
; APPLICANT: GARDNER, Jason
; APPLICANT: MA, Dangshe
; TITLE OF INVENTION: PSMA FORMULATIONS AND USES THEREOF
; FILE REFERENCE: P0741.70006US00
; CURRENT APPLICATION NUMBER: US/10/695,667
; CURRENT FILING DATE: 2003-10-27
; PRIOR APPLICATION NUMBER: US 10/395,894
; PRIOR FILING DATE: 2003-03-21
; PRIOR APPLICATION NUMBER: PCT/US02/33944
; PRIOR FILING DATE: 2002-10-23
; PRIOR APPLICATION NUMBER: US 60/335,215
; PRIOR FILING DATE: 2001-10-23
; PRIOR APPLICATION NUMBER: US 60/362,747
; PRIOR FILING DATE: 2002-03-07
; PRIOR APPLICATION NUMBER: US 60/412,618
; PRIOR FILING DATE: 2002-09-20

```



; NUMBER OF SEQ ID NOS: 33  
 ; SOFTWARE: PatentIn version 3.1  
 ; SEQ ID NO 26  
 ; LENGTH: 469  
 ; TYPE: DNA  
 ; ORGANISM: Artificial Sequence  
 ; FEATURE:  
 ; OTHER INFORMATION: Includes BamHI/BglIII cloning junction, signal peptide, V region, portion  
 ; OTHER INFORMATION: of C region and 3'XbaI/NheI (heavy) or NheI (light) cloning junction  
 US-10-695-667-26

Query Match 89.6%; Score 413.8; DB 17; Length 469;  
 Best Local Similarity 96.0%; Pred. No. 1.2e-110;  
 Matches 437; Conservative 0; Mismatches 12; Indels 6; Gaps 1;

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      11 ATGGGGTCAACCGTCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 70

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      71 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 130

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     131 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 190

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     191 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 250

Qy     241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     251 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 310

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA-----GAC 354
      |||
Db     311 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGGATGGCA 370

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     371 GCAGCTGGCCCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 430

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 449
      |||
Db     431 ACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTC 465
  
```

# RESULT 5

US-10-656-769-31

; Sequence 31, Application US/10656769

; Publication No. US20040097712A1

; GENERAL INFORMATION:

; APPLICANT: Varnum, Brian

; APPLICANT: Witte, Alison

```

; APPLICANT: Vezina, Chris
; APPLICANT: Wong, Lu Min
; APPLICANT: Qian, Xueming
; TITLE OF INVENTION: Therapeutic Human Anti-IL-1R Monoclonal Antibody
; FILE REFERENCE: 01,1554
; CURRENT APPLICATION NUMBER: US/10/656,769
; CURRENT FILING DATE: 2003-09-05
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 31
; LENGTH: 1401
; TYPE: DNA
; ORGANISM: Homo Sapiens
US-10-656-769-31

```

```

Query Match          87.4%; Score 404; DB 16; Length 1401;
Best Local Similarity 93.9%; Pred. No. 9.3e-108;
Matches 432; Conservative 0; Mismatches 25; Indels 3; Gaps 1;

```

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCTAGTGCCTCCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 460

```

RESULT 6

US-10-656-769-33

```

; Sequence 33, Application US/10656769
; Publication No. US20040097712A1
; GENERAL INFORMATION:

```

```
; APPLICANT: Varnum, Brian
; APPLICANT: Witte, Alison
; APPLICANT: Vezina, Chris
; APPLICANT: Wong, Lu Min
; APPLICANT: Qian, Xueming
; TITLE OF INVENTION: Therapeutic Human Anti-IL-1R Monoclonal Antibody
; FILE REFERENCE: 01,1554
; CURRENT APPLICATION NUMBER: US/10/656,769
; CURRENT FILING DATE: 2003-09-05
; NUMBER OF SEQ ID NOS: 79
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 33
; LENGTH: 1389
; TYPE: DNA
; ORGANISM: Homo sapiens
US-10-656-769-33
```

```
Query Match          86.4%; Score 399.2; DB 16; Length 1389;
Best Local Similarity 93.3%; Pred. No. 2.3e-106;
Matches 429; Conservative 0; Mismatches 28; Indels 3; Gaps 1;
```

```
Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    241 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
      |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACGTCTCCTCAGCCTCCACC 417
      |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACGTCTCTAGTGCCTCCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    421 AAGGGCCCATCGGTCTTCCCCCTGGCGCCCTGCTCCAGGA 460
```

# RESULT 7

US-10-656-769-35

; Sequence 35, Application US/10656769

; Publication No. US20040097712A1  
; GENERAL INFORMATION:  
; APPLICANT: Varnum, Brian  
; APPLICANT: Witte, Alison  
; APPLICANT: Vezina, Chris  
; APPLICANT: Wong, Lu Min  
; APPLICANT: Qian, Xueming  
; TITLE OF INVENTION: Therapeutic Human Anti-IL-1R Monoclonal Antibody  
; FILE REFERENCE: 01,1554  
; CURRENT APPLICATION NUMBER: US/10/656,769  
; CURRENT FILING DATE: 2003-09-05  
; NUMBER OF SEQ ID NOS: 79  
; SOFTWARE: PatentIn version 3.0  
; SEQ ID NO 35  
; LENGTH: 1392  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
US-10-656-769-35

Query Match 85.0%; Score 392.8; DB 16; Length 1392;  
Best Local Similarity 92.4%; Pred. No. 1.7e-104;  
Matches 425; Conservative 0; Mismatches 32; Indels 3; Gaps 1;

```

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db     61 GTGCAGCTGATGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db    121 TGTAAGGGTTCTGGATACAGCTTTTCTTCCACTGGATCGCCTGGGTGCGCCAGATGCCC 180

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||
Db    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCCATCCTGGTGCTCTGATACCAGATACAGC 240

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
        |||
Db    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360

Qy    358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCTCAGCCTCCACC 417
        |||
Db    361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCTGGTCACCGTCTCTAGTGCCAGCACC 420

Qy    418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||
Db    421 AAGGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGA 460

```

RESULT 8

```

; Sequence 48, Application US/10291265
; Publication No. US20030232054A1
; GENERAL INFORMATION:
; APPLICANT: Hyseq, Inc.
; APPLICANT: Tang et al
; TITLE OF INVENTION: No. US20030232054A1el Nucleic Acids and Polypeptides
; FILE REFERENCE: 21272-017 (785)
; CURRENT APPLICATION NUMBER: US/10/291,265
; CURRENT FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 09/491,404
; PRIOR FILING DATE: 2000-01-25
; PRIOR APPLICATION NUMBER: 09/617,746
; PRIOR FILING DATE: 2000-07-17
; PRIOR APPLICATION NUMBER: 09/631,451
; PRIOR FILING DATE: 2000-08-03
; PRIOR APPLICATION NUMBER: 09/633,870
; PRIOR FILING DATE: 2000-09-15
; NUMBER OF SEQ ID NOS: 944
; SOFTWARE: FastSEQ for Windows Version 3.0
; SEQ ID NO 48
; LENGTH: 1612
; TYPE: DNA
; ORGANISM: Homo sapiens
; FEATURE:
; NAME/KEY: CDS
; LOCATION: (43)..(1464)
US-10-291-265-48

```

Query Match 78.7%; Score 363.8; DB 15; Length 1612;  
Best Local Similarity 87.3%; Pred. No. 4.9e-96;  
Matches 420; Conservative 0; Mismatches 37; Indels 24; Gaps 1;

[illegible]



```

Db      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAACCTCCAACAGCGCCACCTACCTG 300
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA---CCAA 357
        |||
Db      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACAAAGGGAA 360
Qy      358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTC 404
        |||
Db      361 CTCGACTACTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTC 407

```

RESULT 10

US-09-822-830A-595

; Sequence 595, Application US/09822830A

; Patent No. US20020142952A1

; GENERAL INFORMATION:

; APPLICANT: Genetics Institute, Inc.

; APPLICANT: Wong, Gordon G.

; APPLICANT: Clark, Hilary

; APPLICANT: Fechtel, Kim

; APPLICANT: Agostino, Michael J.

; APPLICANT: Howes, Steven H.

; APPLICANT: Resnick, Richard J.

; APPLICANT: Gulukota, Kamalakar.

; APPLICANT: Graham, James R.

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

; FILE REFERENCE: GIN 6402

; CURRENT APPLICATION NUMBER: US/09/822,830A

; CURRENT FILING DATE: 2001-03-29

; PRIOR APPLICATION NUMBER: 60/195,604

; PRIOR FILING DATE: 2000-04-06

; NUMBER OF SEQ ID NOS: 631

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 595

; LENGTH: 1590

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-822-830A-595

Query Match 77.2%; Score 356.6; DB 9; Length 1590;

Best Local Similarity 87.0%; Pred. No. 6.2e-94;

Matches 408; Conservative 0; Mismatches 49; Indels 12; Gaps 1;

```

Qy      1  ATGGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      51  ATGGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAGGGAGTCTGTGCCGAG 110
Qy      61  GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db      111 GTGAAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGACTCTCTGACGATCTCC 170
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db      171 TGTAAGGGCTCTGGATACAGCTTCCGCAGTTACTGGATCGCCTGGGTGCGCCAGATGCCC 230
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||

```

```

Db      231 GGGAAAGGCCTGGAGTGGATGGGAATCATTATCCTGGGGACTCTGACACCAAATACAGT 290
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||||  |||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      291 CCGTCCGCCCACGGCCAGGTCACCATCTCAGTCGACAAGTCCGTCGCCACCGCCTACCTG 350
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACT- 359
        |||||  |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      351 CAGTGGCGGAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGACGAACCCCTTT 410
Qy      360 -----GGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
        |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      411 CACAGCGGGAGTTTCGCCTTTGATACTTGGGGCCAAGGGACATCGGTCATTGTCTCTTCA 470
Qy      409 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      471 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 519

```

# RESULT 11

US-09-918-995-16482

; Sequence 16482, Application US/09918995

; Publication No. US20030073623A1

; GENERAL INFORMATION:

; APPLICANT: Hyseq, Inc.

; TITLE OF INVENTION: NOVEL NUCLEIC ACID SEQUENCES OBTAINED

; TITLE OF INVENTION: FROM VARIOUS cDNA LIBRARIES

; FILE REFERENCE: 20411-756

; CURRENT APPLICATION NUMBER: US/09/918,995

; CURRENT FILING DATE: 2001-07-30

; PRIOR APPLICATION NUMBER: US/09/235,076

; PRIOR FILING DATE: 1999-01-20

; NUMBER OF SEQ ID NOS: 38054

; SOFTWARE: FastSEQ for Windows Version 3.0

; SEQ ID NO 16482

; LENGTH: 441

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: misc\_feature

; LOCATION: (1)...(441)

; OTHER INFORMATION: n = A,T,C or G

US-09-918-995-16482

Query Match 75.2%; Score 347.2; DB 10; Length 441;

Best Local Similarity 94.0%; Pred. No. 3e-91;

Matches 374; Conservative 0; Mismatches 18; Indels 6; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      44 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGCTCTCCAAGGAGTCTGTGCCGAG 103
Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||  |||||
Db      104 TTCCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 163
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180

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      |||
Db      164 TGTAAGGGTTCTGGATACAGCTTTACCAATTACTGGATCGGCTGGGTGCGCCAGATGCCC 223
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db      224 GGGAAAGGCCTGGAGTGGATGGGGACCATCTATCCTGGTGACTCTGATACCAGATACAGC 283
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db      284 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 343
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCA---- 356
      |||
Db      344 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACGAACTGG 403
Qy      357 --ACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCT 392
      |||
Db      404 NGATCGGAGTACTTTGACTACTGGGGCCAGGGAACCCT 441

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# RESULT 12

US-09-822-830A-507

; Sequence 507, Application US/09822830A

; Patent No. US20020142952A1

## ; GENERAL INFORMATION:

; APPLICANT: Genetics Institute, Inc.

; APPLICANT: Wong, Gordon G.

; APPLICANT: Clark, Hilary

; APPLICANT: Fechtel, Kim

; APPLICANT: Agostino, Michael J.

; APPLICANT: Howes, Steven H.

; APPLICANT: Resnick, Richard J.

; APPLICANT: Gulukota, Kamalakar

; APPLICANT: Graham, James R.

; TITLE OF INVENTION: POLYNUCLEOTIDES ENCODING NOVEL SECRETED PROTEINS

; FILE REFERENCE: GIN 6402

; CURRENT APPLICATION NUMBER: US/09/822,830A

; CURRENT FILING DATE: 2001-03-29

; PRIOR APPLICATION NUMBER: 60/195,604

; PRIOR FILING DATE: 2000-04-06

; NUMBER OF SEQ ID NOS: 631

; SOFTWARE: PatentIn Ver. 2.0

; SEQ ID NO 507

; LENGTH: 1576

; TYPE: DNA

; ORGANISM: Homo sapiens

US-09-822-830A-507

Query Match 74.8%; Score 345.6; DB 9; Length 1576;

Best Local Similarity 87.4%; Pred. No. 9.9e-91;

Matches 402; Conservative 0; Mismatches 54; Indels 4; Gaps 2;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      47 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCCGTTCTCCAAGGAGTCTGTGCCGAA 106
Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120

```

```

      |||
Db      107 GTGCAGCTGGTGCAGTCCGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGCGGATCTCC 166
Qy      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db      167 TGTCAGGGTTCTGGATACACCTTCACCAGTTACCGGATCAGCTGGGTGCGCCAGATGCCC 226
Qy      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db      227 GGGAAAGGCCTGGAGTGGATGGGTAAAATTGATCCTGCTGACTCTTACACGTCTACGAC 286
Qy      241 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      287 CCGGCCTTCCAAGGCCACGTCAACCATCTCAATTGACAAGTCCATCAGCACTGCCTACCTG 346
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGC--GAGAGACCAA 357
      |||
Db      347 CAGTGGAGTAG-CTGAAGGCCTCGGACAGCGCCATTTATTACTGCACGAAGAGCGCTCAC 405
Qy      358 CTGGGCCTCTTTGACTACTGGGGCCAGGGAACCTGGTCAACCGTCTCCTCAGCCTCCACC 417
      |||
Db      406 GTATTACGATATTTTGACTGGGGTCAGGGGACCCTGGTCAACCGTCTCCTCAGCCTCCACC 465
Qy      418 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db      466 AAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 505

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# RESULT 13

US-10-226-615-1

; Sequence 1, Application US/10226615

; Publication No. US20030138421A1

## ; GENERAL INFORMATION:

; APPLICANT: van de Winkel, Jan G.J.

; APPLICANT: van Dijk, Marcus Antonius

; APPLICANT: Gerritsen, Arnout F.

; APPLICANT: Schuurman, Janine

; APPLICANT: Baadsgaard, Ole

; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)

; FILE REFERENCE: GMI-024

; CURRENT APPLICATION NUMBER: US/10/226,615

; CURRENT FILING DATE: 2002-08-23

; PRIOR APPLICATION NUMBER: US 60/314,731

; PRIOR FILING DATE: 2001-08-23

; NUMBER OF SEQ ID NOS: 4

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 1

; LENGTH: 390

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: CDS

; LOCATION: (1)...(390)

US-10-226-615-1

Query Match 74.7%; Score 345.2; DB 15; Length 390;

Best Local Similarity 94.6%; Pred. No. 1.1e-90;

Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

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Qy      58 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 117
      |||
Db      1 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 60

Qy     118 TCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATG 177
      |||
Db      61 TCCTGTAAGGGTTCTGGATACTTCTTTACCACCTACTGGATCGGCTGGGTGCGCCAGATG 120

Qy     178 CCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATAC 237
      |||
Db     121 CCCGGGAAAGGCCTGGAGTATATGGGGATCATCTATCCTGGTGACTCTGATACCAGATAC 180

Qy     238 AGCCCGTCCTTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 297
      |||
Db     181 AGCCCGTCCTTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
      |||
Db     241 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGGGGGT 300

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     301 AACTGGAAGTGTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCACCGTCTCCTCAGCCTCC 360

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 444
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Db     361 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 390
```

#### RESULT 14

US-10-374-932-1

; Sequence 1, Application US/10374932

; Publication No. US20030235586A1

; GENERAL INFORMATION:

; APPLICANT: van de Winkel, Jan G.J.

; APPLICANT: van Dijk, Marcus Antonius

; APPLICANT: Schuurman, Janine

; APPLICANT: Gerritsen, Arnout F.

; APPLICANT: Baadsgaard, Ole

; APPLICANT: Petersen, Jorgen

; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)

; FILE REFERENCE: GMI-024CP

; CURRENT APPLICATION NUMBER: US/10/374,932

; CURRENT FILING DATE: 2003-02-26

; PRIOR APPLICATION NUMBER: US 60/314,731

; PRIOR FILING DATE: 2001-08-23

; PRIOR APPLICATION NUMBER: US 10/226615

; PRIOR FILING DATE: 2002-08-23

; NUMBER OF SEQ ID NOS: 31

; SOFTWARE: FastSEQ for Windows Version 4.0

; SEQ ID NO 1

; LENGTH: 390

; TYPE: DNA

; ORGANISM: Homo sapiens

; FEATURE:

; NAME/KEY: CDS  
; LOCATION: (1)...(390)  
US-10-374-932-1

Query Match 74.7%; Score 345.2; DB 15; Length 390;  
Best Local Similarity 94.6%; Pred. No. 1.1e-90;  
Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

```
Qy      58 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 117
      |||
Db      1  GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 60

Qy     118 TCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATG 177
      |||
Db     61  TCCTGTAAGGGTTCTGGATACCTTTTACCACCTACTGGATCGGCTGGGTGCGCCAGATG 120

Qy     178 CCCGGGAAAGGCCCTGGAGTGGATGGGGATCATCTATCCTGGTGA CTCTGATACCACATAC 237
      |||
Db    121  CCCGGGAAAGGCCCTGGAGTATATGGGGATCATCTATCCTGGTGA CTCTGATACCAGATAC 180

Qy     238 AGCCCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 297
      |||
Db    181  AGCCCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
      |||
Db    241  CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGGGGGT 300

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCAGCCTCC 414
      |||
Db    301  AACTGGAAGTGTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCAGCCTCC 360

Qy     415 ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 444
      |||
Db    361  ACCAAGGGCCCATCGGTCTTCCCCCTGGCA 390
```

#### RESULT 15

US-10-379-741-1

; Sequence 1, Application US/10379741  
; Publication No. US20040071702A1  
; GENERAL INFORMATION:  
; APPLICANT: van de Winkel, Jan G.J.  
; APPLICANT: van Dijk, Marcus Antonius  
; APPLICANT: Schuurman, Janine  
; APPLICANT: Gerritsen, Arnout F.  
; APPLICANT: Baadsgaard, Ole  
; APPLICANT: Petersen, Jorgen  
; TITLE OF INVENTION: HUMAN ANTIBODIES SPECIFIC FOR INTERLEUKIN 15 (IL-15)  
; FILE REFERENCE: GMI-024CP2  
; CURRENT APPLICATION NUMBER: US/10/379,741  
; CURRENT FILING DATE: 2003-03-05  
; PRIOR APPLICATION NUMBER: US 60/314,731  
; PRIOR FILING DATE: 2001-08-23  
; PRIOR APPLICATION NUMBER: US 10/226615  
; PRIOR FILING DATE: 2002-08-23  
; NUMBER OF SEQ ID NOS: 31

; SOFTWARE: FastSEQ for Windows Version 4.0  
; SEQ ID NO 1  
; LENGTH: 390  
; TYPE: DNA  
; ORGANISM: Homo sapiens  
; FEATURE:  
; NAME/KEY: CDS  
; LOCATION: (1)...(390)  
US-10-379-741-1

Query Match 74.7%; Score 345.2; DB 16; Length 390;  
Best Local Similarity 94.6%; Pred. No. 1.1e-90;  
Matches 369; Conservative 0; Mismatches 18; Indels 3; Gaps 1;

```
Qy      58 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 117
      |||
Db      1 GAGGTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATC 60

Qy     118 TCCTGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATG 177
      |||
Db      61 TCCTGTAAGGTTTCTGGATACTTCTTTACCACTACTGGATCGGCTGGGTGCGCCAGATG 120

Qy     178 CCCGGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATAC 237
      |||
Db     121 CCCGGGAAAGGCCTGGAGTATATGGGGATCATCTATCCTGGTGACTCTGATACCAGATAC 180

Qy     238 AGCCCGTCCTTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 297
      |||
Db     181 AGCCCGTCCTTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTAC 240

Qy     298 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA---GAC 354
      |||
Db     241 CTGCAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGGGGGT 300

Qy     355 CAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 414
      |||
Db     301 AACTGGAAGTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCC 360

Qy     415 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCA 444
      |||
Db     361 ACCAAGGGCCCCATCGGTCTTCCCCCTGGCA 390
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Search completed: December 3, 2004, 02:43:20  
Job time : 355.212 secs

GenCore version 5.1.6  
Copyright (c) 1993 - 2004 Compugen Ltd.

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:03 ; Search time 2404.82 Seconds  
(without alignments)  
7000.593 Million cell updates/sec

Title: US-08-728-463B-207

Perfect score: 462  
Sequence: 1 ATGGGGTCAACCGCCATCCT.....CACCTCCTCCAAGAAGCTT 462

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 32822875 seqs, 18219865908 residues

Total number of hits satisfying chosen parameters: 65645750

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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1: gb\_est1:\*  
2: gb\_est2:\*  
3: gb\_htc:\*  
4: gb\_est3:\*  
5: gb\_est4:\*  
6: gb\_est5:\*  
7: gb\_est6:\*  
8: gb\_gss1:\*  
9: gb\_gss2:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	% Query		DB	ID	Description
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2	396.8	85.9	875	5	BQ711293 AGENCOURT
3	396.8	85.9	921	5	BQ710635 AGENCOURT
4	396.8	85.9	1114	4	BM920470 AGENCOURT
5	389.2	84.2	795	4	BG685604 602637582
6	385.2	83.4	994	5	BQ711534 AGENCOURT
7	382.8	82.9	584	2	AW630043 hh74e04.y
8	380.4	82.3	672	6	CD683913 EST433 hu
9	380	82.3	880	5	BQ712042 AGENCOURT
10	379.8	82.2	857	4	BI906125 603062533
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12	378.2	81.9	658	4	BM713153 UI-E-EJ0-
13	378.2	81.9	873	4	BG754454 602710060
14	375.4	81.3	573	7	CR545747 DKFZp470L
15	372.8	80.7	835	4	BM007733 603617180
16	371	80.3	591	6	CD705168 EST21695
17	369	79.9	843	4	BG754240 602709791
18	368.8	79.8	487	2	AW403158 UI-HF-BK0
19	366.4	79.3	607	4	BG755575 602716258
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28	357.4	77.4	737	4	BG485039	BG485039	602503853
29	356.6	77.2	949	5	BQ711238	BQ711238	AGENCOURT
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33	353.4	76.5	835	4	BM008329	BM008329	603617996
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38	346	74.9	1104	4	BG397498	BG397498	602439327
39	344	74.5	397	2	AW403368	AW403368	UI-HF-BK0
40	343.8	74.4	1134	5	BQ894227	BQ894227	AGENCOURT
41	343.6	74.4	862	2	BF663762	BF663762	602145490
42	342	74.0	574	6	CD723218	CD723218	oj19d03.y
43	339.4	73.5	965	5	BQ882232	BQ882232	AGENCOURT
44	337.2	73.0	387	2	AW403305	AW403305	UI-HF-BK0
45	333	72.1	411	2	AW402515	AW402515	UI-HF-BK0

#### ALIGNMENTS

#### RESULT 1

BQ707110

LOCUS BQ707110 850 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT\_8349898 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:6280441  
5', mRNA sequence.

ACCESSION BQ707110

VERSION BQ707110.1 GI:21846009

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 850)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be  
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM2471 row: k column: 02

High quality sequence stop: 667.

FEATURES  
source

Location/Qualifiers

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/db\_xref="taxon:9606"  
/clone="IMAGE:6280441"  
/lab\_host="DH10B (phage-resistant)"  
/clone\_lib="NIH\_MGC\_113"  
/note="Organ: spleen; Vector: pOTB7; Site\_1: XhoI; Site\_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH\_MGC Library."

ORIGIN

Query Match 86.5%; Score 399.4; DB 5; Length 850;  
Best Local Similarity 92.1%; Pred. No. 2e-90;  
Matches 421; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

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QY      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      23 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 82
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QY      61 CTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
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QY      121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db      143 TGTAAGGGTTCTGGATATAGCTTTACAGCTACTGGATCGTCTGGGTGCGCCAGACGCCC 202
      |||

QY      181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
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Db      203 GGGAAAGGCCTGGAGTGGATGGGGAGCATCTATCCTGGAGACTCTGATACCAGATACGGT 262
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QY      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
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Db      263 CCGTCCTTCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 322
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QY      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
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Db      323 CAGTGGAGCAGCCTGAAGGCCTCGGACATCGCCATGTATTACTGTGCGAGACAGAGGGAC 382
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QY      361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCCTGGTCAACCGTCTCCTCAGCCTCCACCAAG 420
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Db      383 TACTACATGGACGTC'TGGGGCAAAGGGACCACGGTCAACCGTCTCCTCAGCCTCCACCAAG 442
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QY      421 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
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Db      443 GGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 479
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RESULT 2  
BQ711293



LOCUS BQ711293 875 bp mRNA linear EST 16-JUL-2002  
 DEFINITION AGENCOURT\_8349985 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:6280207  
 5', mRNA sequence.  
 ACCESSION BQ711293  
 VERSION BQ711293.1 GI:21850192  
 KEYWORDS EST.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 875)  
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.  
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)  
 JOURNAL Unpublished (1999)  
 COMMENT Contact: Robert Strausberg, Ph.D.  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Tissue Procurement: Dr. Mark Watson  
 cDNA Library Preparation: Rubin Laboratory  
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
 DNA Sequencing by: Agencourt Bioscience Corporation  
 Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:  
<http://image.llnl.gov>  
 Plate: LLCM2471 row: a column: 08  
 High quality sequence stop: 594.

FEATURES Location/Qualifiers  
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 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="IMAGE:6280207"  
 /lab\_host="DH10B (phage-resistant)"  
 /clone\_lib="NIH\_MGC\_113"  
 /note="Organ: spleen; Vector: pOTB7; Site\_1: XhoI; Site\_2:  
 EcoRI; cDNA made by oligo-dT priming. Directionally cloned  
 into EcoRI/XhoI sites using the following 5' adaptor:  
 GGCACGAG(G). Library constructed by Ling Hong in the  
 laboratory of Gerald M. Rubin (University of California,  
 Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and  
 Superscript II RT (Life Technologies). Note: this is a  
 NIH\_MGC Library."

#### ORIGIN

Query Match 85.9%; Score 396.8; DB 5; Length 875;  
 Best Local Similarity 92.2%; Pred. No. 8.9e-90;  
 Matches 435; Conservative 0; Mismatches 22; Indels 15; Gaps 1;

Qy 1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60  
 |||  
 Db 28 ATGGGGTCAACCGCCATCCTCGCCCTCCTCGGCTGTTCTCCAAGGAGTCTGTGCCGAG 87  
 Qy 61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120  
 |||  
 Db 88 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 147  
 Qy 121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180  
 |||

Db 148 TGTAAGGGTTCTGGATACAGTTTTACCAGTCACTGGATCGGCTGGGTGCGCCAGATGCCC 207  
 QY 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 208 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACGACATACAGC 267  
 QY 241 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 ||||||||||||||||||||||||||||||||||||||||||||||||||||||||  
 Db 268 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGTCGACAAGTCCATCAATACCGCCTACCTG 327  
 QY 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA----- 353  
 ||||| |||| ||||||||||||||||||||||||||||||||  
 Db 328 GAGTGGCGCAGTCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACATCTCAGA 387  
 QY 354 -----CCAAGTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405  
 ||||| | ||||||||||||||||||||||||||||||||  
 Db 388 CCTGCTACTCAACTCCAACCTTTTGACCACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 447  
 QY 406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457  
 ||||||||||||||||||||||||||||||||||||||||  
 Db 448 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 499

# RESULT 3

BQ710635

LOCUS BQ710635 921 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT\_8475002 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:6301375  
5', mRNA sequence.

ACCESSION BQ710635

VERSION BQ710635.1 GI:21849534

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 921)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Agencourt Bioscience Corporation

Clone distribution: MGC clone distribution information can be  
found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM2517 row: c column: 08

High quality sequence stop: 662.

## FEATURES

source

Location/Qualifiers

1..921

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:6301375"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_113"  
 /note="Organ: spleen; Vector: pOTB7; Site\_1: XhoI; Site\_2:  
 EcoRI; cDNA made by oligo-dT priming. Directionally cloned  
 into EcoRI/XhoI sites using the following 5' adaptor:  
 GGCACGAG(G). Library constructed by Ling Hong in the  
 laboratory of Gerald M. Rubin (University of California,  
 Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and  
 Superscript II RT (Life Technologies). Note: this is a  
 NIH\_MGC Library."

# ORIGIN

Query Match 85.9%; Score 396.8; DB 5; Length 921;  
 Best Local Similarity 92.2%; Pred. No. 9e-90;  
 Matches 435; Conservative 0; Mismatches 22; Indels 15; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	30	ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	89
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	90	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAGCCCGGGGAGTCTCTGAAGATCTCC	149
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	150	TGTAAGGGTTCTGGATACAGTTTTACAGTCACTGGATCGGCTGGGTGCGCCAGATGCCC	209
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240
Db	210	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACGACATACAGC	269
Qy	241	CCGTCCTTCCAAGGCCAGGTCAACATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG	300
Db	270	CCGTCCTTCCAAGGCCAGGTCAACATCTCAGTCGACAAGTCCATCAATACCGCCTACCTG	329
Qy	301	CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA-----	353
Db	330	GAGTGGCGCAGCCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACATCTCAGA	389
Qy	354	-----CCAAGTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC	405
Db	390	GCTGCTACTCAACTCCAACCTTTTGACTCCTGGGGCCAGGGAACCCTGGTCACCGTTTCC	449
Qy	406	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	457
Db	450	TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA	501

## RESULT 4

BM920470

LOCUS BM920470 1114 bp mRNA linear EST 12-MAR-2002

DEFINITION AGENCOURT\_6709628 NIH\_MGC\_122 Homo sapiens cDNA clone IMAGE:5750445  
 5', mRNA sequence.

ACCESSION BM920470

VERSION BM920470.1 GI:19370849

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 1114)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Tissue Procurement: Life Technologies, Inc.  
 cDNA Library Preparation: Life Technologies, Inc.  
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
 DNA Sequencing by: Agencourt Bioscience Corporation  
 Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:  
<http://image.llnl.gov>  
 Plate: LLAM12781 row: g column: 22  
 High quality sequence stop: 736.

FEATURES Location/Qualifiers

source 1..1114  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="IMAGE:5750445"  
 /lab\_host="DH10B"  
 /clone\_lib="NIH\_MGC\_122"  
 /note="Organ: pooled lung and spleen; Vector: pCMV-SPORT6;  
 Site\_1: NotI; Site\_2: EcoRV (destroyed); RNA source  
 anonymous pool of 24 week female lung, 16 week female  
 spleen, and 20-22 week male spleens. Library is oligo-dT  
 primed and directionally cloned (EcoRV site is destroyed  
 upon cloning). Average insert size 1.4 kb, insert size  
 range 1-3 kb. Library is normalized and enriched for  
 full-length clones and was constructed by C. Gruber  
 (Invitrogen). Research Genetics tracking code 026. Note:  
 this is a NIH\_MGC Library."

#### ORIGIN

Query Match 85.9%; Score 396.8; DB 4; Length 1114;  
 Best Local Similarity 92.9%; Pred. No. 9.3e-90;  
 Matches 416; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
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Db      69 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 128

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db     129 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 188

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db     189 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 248

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCACATACAGC 240
        |||
Db     249 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGAAGTCTGATACCAGATACAGC 308

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Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 309 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 368  
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 |||  
 Db 369 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGAGGG 428  
 Qy 361 GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCCTCCACCAAG 420  
 |||  
 Db 429 GCTGGATTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGGGAGTGCATCC 488  
 Qy 421 GGCCCATCGGTCTTCCCCCTGGCACCCCT 448  
 |||  
 Db 489 GCCCAACCCTTTTCCCCCTCGTCTCCT 516

# RESULT 5

BG685604

LOCUS BG685604 795 bp mRNA linear EST 01-MAY-2001

DEFINITION 602637582F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4765028 5', mRNA sequence.

ACCESSION BG685604

VERSION BG685604.1 GI:13917001

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 795)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1623 row: d column: 21

High quality sequence stop: 789.

## FEATURES

source

Location/Qualifiers

1. .795

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4765028"

/tissue\_type="primary B-cells from tonsils (cell line)"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_48"

/note="Organ: B-cells; Vector: pOTB7; Site\_1: XhoI;

Site\_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the

following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH\_MGC Library."

# ORIGIN

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Query Match          84.2%; Score 389.2; DB 4; Length 795;
Best Local Similarity 90.8%; Pred. No. 7.4e-88;
Matches 434; Conservative 0; Mismatches 23; Indels 21; Gaps 1;

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db     37 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 96

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     97 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 156

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    157 TGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGCCC 216

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    217 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATACCAGATACAGC 276

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    277 CCGTCCTTCCAAGGCCAGGTCATTATTTTCAGCCGACAAGTCCATCAGTACCGCCTACCTG 336

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
      |||
Db    337 CTATGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGTGGT 396

Qy    352 -----GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACC 399
      |||
Db    397 TACTATGATTTCGGGGACCCCGACTACATTGACTCCTGGGGCCAGGGAACCCTAGTCACC 456

Qy    400 GTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db    457 GTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 514

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## RESULT 6

BQ711534

LOCUS BQ711534 994 bp mRNA linear EST 16-JUL-2002

DEFINITION AGENCOURT\_8292330 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:6280839 5', mRNA sequence.

ACCESSION BQ711534

VERSION BQ711534.1 GI:21850433

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.







# ORIGIN

Query Match 82.9%; Score 382.8; DB 2; Length 584;  
 Best Local Similarity 90.4%; Pred. No. 2.9e-86;  
 Matches 424; Conservative 0; Mismatches 33; Indels 12; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        |||
Db      36 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 95

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        |||
Db     96 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 155

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGC'TACTGGATCGGCTGGGTGCGCCAGATGCCC 180
        |||
Db    156 TGTGAGGGTTCTGGATACATCTTTAACAAC'TACTGGTTCGCCTGGGTGCGCCAGATGCCC 215

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        |||
Db    216 GGGGAAGGCCTGGAGTGGATAGGGGTCATCTATCCTGGTGACTCTGATACCAGATACAGC 275

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||
Db    276 CCGTCCTTCCAAGGCCAAGTCACCATCTCAGTCGACAAGTCCACCAGCACCGCCTACTTG 335

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACC----- 355
        |||
Db    335 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATATATTACTGTGCGAGAGCCCGTGGC 395

Qy    356 -----AACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCA 408
        |
Db    396 CTGNGCGGAGGATACTACTTTGACTCCTGNGGCCAGGGAGCCCTGGTCACCGTCTCCTCA 455

Qy    409 GCCTCCACCAAGGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
        ||
Db    456 GCTTCCACCAAGGGGCCCATCCGTCTTCCCCCTGGCGCCCTGCTCCAGGA 504
  
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## RESULT 8

CD683913

LOCUS CD683913 672 bp mRNA linear EST 25-JUN-2003

DEFINITION EST433 human nasopharynx Homo sapiens cDNA, mRNA sequence.

ACCESSION CD683913

VERSION CD683913.1 GI:32198411

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 672)

AUTHORS Liu,X.-Q., Zhou,Y., Zhang,L.-J., Xu,H., Chen,H.-K., Pan,Z.-G. and  
 Zeng,Y.-X.

TITLE Transcriptional Gene Expression Profile of Human Nasopharynx

JOURNAL Unpublished (2003)

COMMENT Contact: YiXin Zeng

Cancer Center

Sun Yat-sen University  
651 DongFeng Road East, GuangZhou 510060, China  
Tel: 86-1380-9770-743  
Fax: 86-20-8775-4506  
Email: yxzeng@gzsums.edu.cn.

FEATURES                      Location/Qualifiers  
    source                    1. .672  
                              /organism="Homo sapiens"  
                              /mol\_type="mRNA"  
                              /db\_xref="taxon:9606"  
                              /tissue\_type="normal nasopharynx"  
                              /clone\_lib="human nasopharynx"  
                              /note="ESTs generated from a normal nasopharynx cDNA  
                              library from southern Chinese"

#### ORIGIN

Query Match                      82.3%;   Score 380.4;   DB 6;   Length 672;  
Best Local Similarity    90.3%;   Pred. No. 1.2e-85;  
Matches 421;   Conservative       0;   Mismatches    36;   Indels       9;   Gaps       1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
          |||
Db      86 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 145

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
          |||
Db     146 GTGCAGCTGGTACAGTCTGGAGCCGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 205

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
          |||
Db     206 TGTAAGTCTCTGGATACAACCTTATCACCTATTGGATCGGCTGGGTGCGCCAGATGCCC 265

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
          |||
Db     266 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATCCCAGATACAGC 325

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
          |||
Db     326 CCATCCTTCCAAGGCCAGGTACCTTCTCAGTGGACAAGTCCATCAGCACCGCCTACCTG 385

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
          |||
Db     386 CACTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACCCACGGT 445

Qy     361 GGCCTC-----TTTGA TACTGGGGCCAGGGAACCCTGGTCACCGTCTCCTCAGCC 411
          |||
Db     446 GGCTTCGAAAATGCTTTTGATATTTGGGGCCAAGGGACAACGGTCATCGTCTCTTCAGCC 505

Qy     412 TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
          |||
Db     506 TCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 551
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#### RESULT 9

BQ712042

LOCUS            BQ712042                      880 bp    mRNA    linear    EST 16-JUL-2002  
DEFINITION    AGENCOURT\_8351686 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:6282281

5', mRNA sequence.

ACCESSION BQ712042

VERSION BQ712042.1 GI:21850941

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 880)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.  
Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
Tissue Procurement: Dr. Mark Watson  
cDNA Library Preparation: Rubin Laboratory  
cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
DNA Sequencing by: Agencourt Bioscience Corporation  
Clone distribution: MGC clone distribution information can be  
found through the I.M.A.G.E. Consortium/LLNL at:  
<http://image.llnl.gov>  
Plate: LLCM2476 row: g column: 18  
High quality sequence stop: 471.

FEATURES Location/Qualifiers

source 1..880  
/organism="Homo sapiens"  
/mol\_type="mRNA"  
/db\_xref="taxon:9606"  
/clone="IMAGE:6282281"  
/lab\_host="DH10B (phage-resistant)"  
/clone\_lib="NIH\_MGC\_113"  
/note="Organ: spleen; Vector: pOTB7; Site\_1: XhoI; Site\_2:  
EcoRI; cDNA made by oligo-dT priming. Directionally cloned  
into EcoRI/XhoI sites using the following 5' adaptor:  
GGCACGAG(G). Library constructed by Ling Hong in the  
laboratory of Gerald M. Rubin (University of California,  
Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and  
Superscript II RT (Life Technologies). Note: this is a  
NIH\_MGC Library."

#### ORIGIN

Query Match 82.3%; Score 380; DB 5; Length 880;  
Best Local Similarity 89.3%; Pred. No. 1.6e-85;  
Matches 432; Conservative 0; Mismatches 25; Indels 27; Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      21 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 80

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      81 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 140

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     141 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 200

```

Qy 181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240  
 |||  
 Db 201 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGT 260  
 Qy 241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300  
 |||  
 Db 261 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAATACCGCCTTCCTG 320  
 Qy 301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360  
 |||  
 Db 321 CAGTGGAAACAGCCTGAAGGCCTCGGACACCGCCATGTATTTCTGTGCGAGACTCGAAATT 380  
 Qy 361 G-----GCCTCTTTGACTACTGGGGCCAGGGAACCCCTG 393  
 |  
 Db 381 GAAATAGTAGCAGGGGCTCCCATCGACTACGGTATGGACGTCTGGGGCCAAGGGACCGCG 440  
 Qy 394 GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCC 453  
 |||  
 Db 441 GTCACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCC 500  
 Qy 454 AAGA 457  
 |||  
 Db 501 AAGA 504

# RESULT 10

BI906125

LOCUS BI906125 857 bp mRNA linear EST 16-OCT-2001  
 DEFINITION 603062533F1 NIH\_MGC\_118 Homo sapiens cDNA clone IMAGE:5211561 5',  
 mRNA sequence.

ACCESSION BI906125

VERSION BI906125.1 GI:16168777

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 857)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Life Technologies, Inc.

cDNA Library Preparation: Life Technologies, Inc.

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLAM11531 row: b column: 10

High quality sequence stop: 738.

## FEATURES

source

Location/Qualifiers

1..857

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

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/clone="IMAGE:5211561"
/tissue_type="leukocyte"
/lab_host="DH10B"
/clone_lib="NIH_MGC_118"
/note="Vector: pCMV-SPORT6; Site_1: NotI; Site_2: EcoRV
(destroyed); RNA source leukocytes from anonymous pool of
non-activated adult donors. Library is oligo-dT primed
and directionally cloned (EcoRV site is destroyed upon
cloning). Average insert size 1.7 kb, insert size range
1.2-3.3 kb. Library is normalized and enriched for
full-length clones and was constructed by C. Gruber
(Invitrogen). Research Genetics tracking code 027. Note:
this is a NIH_MGC Library."

```

# ORIGIN

```

Query Match          82.2%;  Score 379.8;  DB 4;  Length 857;
Best Local Similarity 91.9%;  Pred. No. 1.8e-85;
Matches 418;  Conservative 0;  Mismatches 22;  Indels 15;  Gaps 1;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      34 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 93
      |||

Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      94 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 153
      |||

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     154 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 213
      |||

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     214 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCAGATACAGC 273
      |||

Qy     241 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     274 CCGTCCTTCCAAGGCCAGGTACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 333
      |||

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db     334 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACACGAGCAG 393
      |||

Qy     361 GGCCT-----CTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
      |||
Db     394 TGGCTGGTACGAGGAAGTGGGTTCGACCCTGGGGCCAGGGAACCCTGGTCACCGTCTCC 453
      |||

Qy     406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCT 440
      |||
Db     454 TCAGCACCACCAAGGCTCCGGATGTGTCCCCAT 488
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# RESULT 11

AW403183

LOCUS AW403183 489 bp mRNA linear EST 16-FEB-2000

DEFINITION UI-HF-BK0-aay-c-07-0-UI.r1 NIH\_MGC\_36 Homo sapiens cDNA clone

IMAGE:3055476 5', mRNA sequence.

ACCESSION AW403183  
 VERSION AW403183.1 GI:6922047  
 KEYWORDS EST.  
 SOURCE Homo sapiens (human)  
 ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.  
 REFERENCE 1 (bases 1 to 489)  
 AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.  
 TITLE National Institutes of Health, Mammalian Gene Collection (MGC)  
 JOURNAL Unpublished (1999)  
 COMMENT Contact: Robert Strausberg, Ph.D.  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Eco RI site shown at the beginning of the sequence.  
 Tissue Procurement: Louis M. Staudt, M.D., Ph.D.  
 cDNA Library Preparation: M.B. Soares Lab  
 cDNA Library Arrayed by: M.B. Soares Lab  
 DNA Sequencing by: M.B. Soares Lab  
 Clone distribution: MGC clone distribution information can be  
 found through the I.M.A.G.E. Consortium/LLNL at:  
[www-bio.llnl.gov/bbrp/image/image.html](http://www-bio.llnl.gov/bbrp/image/image.html)  
 Seq primer: M13 Forward.  
 FEATURES Location/Qualifiers  
 source 1..489  
 /organism="Homo sapiens"  
 /mol\_type="mRNA"  
 /db\_xref="taxon:9606"  
 /clone="IMAGE:3055476"  
 /tissue\_type="lymph"  
 /cell\_type="germinal center B cells"  
 /cell\_line="MGC85"  
 /lab\_host="DH10B (LTI)"  
 /clone\_lib="NIH\_MGC\_36"  
 /note="Vector: pT7T3-Pac; Site\_1: NotI; Site\_2: Eco RI;  
 Constructed from size fractionated cytoplasmic mRNA  
 (0.5-1.5kb). Directionally cloned. Cells provided by Louis  
 M. Staudt, Ph.D. Library preparation by Maria de Fatima  
 Bonaldo, Ph.D. and M. Bento Soares, Ph.D."

#### ORIGIN

Query Match 82.1%; Score 379.4; DB 2; Length 489;  
 Best Local Similarity 89.7%; Pred. No. 2.1e-85;  
 Matches 426; Conservative 0; Mismatches 31; Indels 18; Gaps 1;

Qy	1	ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	60
Db	2	ACGAGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG	61
Qy	61	GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC	120
Db	62	GTGCAGCTGGTGCAGTCTGGGACAGAGGTGAAAAAGTCCGGGGAGTCTCTGAAGATCTCC	121
Qy	121	TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC	180
Db	122	TGTCAGGGTTCTGGATACAGCTTTGCCACCTCCTGGATCGGCTGGGTGCGCCAGATGCCC	181
Qy	181	GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC	240

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      |||
Db      182 GGGAAAGGCCTGGAGTGGATGGGCATCATCTATCCTGGTGA CTCTGATACCA GATAACAGC 241
Qy      241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db      242 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 301
Qy      301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db      302 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACTTCGCGGG 361
Qy      361 -----GGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTC 402
      |||
Db      362 GGGCAAGTATGGTGGAGTGGCACTTTTGATATCTGGGGCCAAGGGACAATGGTCATCGTC 421
Qy      403 TCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db      422 TCTTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 476

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# RESULT 12

BM713153

LOCUS BM713153 658 bp mRNA linear EST 28-FEB-2002

DEFINITION UI-E-EJ0-ahn-d-09-0-UI.r1 UI-E-EJ0 Homo sapiens cDNA clone  
UI-E-EJ0-ahn-d-09-0-UI 5', mRNA sequence.

ACCESSION BM713153

VERSION BM713153.1 GI:19026411

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 658)

AUTHORS Bonaldo,M.F., Lennon,G. and Soares,M.B.

TITLE Normalization and subtraction: two approaches to facilitate gene  
discovery

JOURNAL Genome Res. 6 (9), 791-806 (1996)

MEDLINE 97044477

PUBMED 8889548

COMMENT Contact: Soares, MB

Coordinated Laboratory for Computational Genomics

University of Iowa

375 Newton Road , 4156 MEBRF, Iowa City, IA 52242, USA

Tel: 319 335 8250

Fax: 319 335 9565

Email: bento-soares@uiowa.edu

Tissue Procurement: Dr. Gregg Hageman

cDNA Library preparation: Dr. M. Bento Soares, Univeristy of Iowa

cDNA Library Arrayed by: Dr. M. Bento Soares, Univeristy of Iowa

DNA Sequencing by: Dr. M. Bento Soares, Univeristy of Iowa

Clone Distribution: Researchers may obtain clones from Research  
Genetics (www.resgen.com).

Seq primer: M13 Reverse.

FEATURES

source Location/Qualifiers

1. .658

/organism="Homo sapiens"

/mol\_type="mRNA"

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/db_xref="taxon:9606"
/clone="UI-E-EJ0-ahn-d-09-0-UI"
/tissue_type="fetal eyes, lens, eye anterior segment,
optic nerve, retina, Retina Foveal and Macular, RPE and
Choroid"
/dev_stage="fetal and adult"
/lab_host="DH10B (Life Technologies) (T1 phage resistant)"
/clone_lib="UI-E-EJ0"
/note="Organ: eye; Vector: pT7T3-Pac (Pharmacia) with a
modified polylinker; Site_1: EcoR I; Site_2: Not I;
UI-E-EJ0 is a subtracted cDNA library constructed
according to Bonaldo, Lennon and Soares, Genome Research,
6:791-806, 1996. First strand cDNA synthesis was primed
with an oligo-dT primer containing a Not I site. Double
stranded cDNA was ligated to an EcoR I adaptor, digested
with Not I, and cloned directionally into pT7T3-Pac
vector. The oligonucleotide used to prime the synthesis of
first-strand cDNA contains a library tag sequence that is
located between the Not I site and the (dT)18 tail. The
sequence tags for this library are: fetal eyes,
AGAATCAAGA; lens, CGATTAGCGA; eye anterior segment,
AATGCCGCAT; optic nerve, CCATTAAGTG; retina, CCGCG; Retina
Foveal and Macular, GTCC; RPE and Choroid, ACCTA. This
library was created for the program, Gene Discovery in the
Visual System, supported by National Eye Institute (NEI)."
```

#### ORIGIN

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Query Match          81.9%;  Score 378.2;  DB 4;  Length 658;
Best Local Similarity 89.2%;  Pred. No. 4.4e-85;
Matches 429;  Conservative 0;  Mismatches 28;  Indels 24;  Gaps 1;

Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
      |||
Db      7 ATGGGGTCAACCGCCATCCTCGCCCTCCTCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 66

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db     67 GTGCAGCTGGTCCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAATCTCTGAAGATCTCC 126

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db    127 TGTAAGGCTTCTGGATACAGGTTTAGCACCTACGGGCTCGCCTGGGTGCGCCAGATGCCC 186

Qy    181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db    187 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCCGATACCAGATACAGT 246

Qy    241 CCGTCCTTCCAAGGCCAGGTCAACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db    247 CCGTCCTTCCAAGGCCAGGTCAACCATTTAGCCGACAAGTCCATCAGTACCGCCTACCTG 306

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGACCAACTG 360
      |||
Db    307 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCCTGTATTTCTGTGCGAGACATCGTATT 366

Qy    361 GG-----CCTCTTTGACTACTGGGGCCAGGGAACCCTGGTC 396
      |||
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Db 367 GGATATTGTAGTCGTTCTACCTGCTCCTCGACTGACTACTGGGGCCAGGGAACCCTGGTC 426

Qy 397 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 456

Db 427 ACCGTCTCCTCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAG 486

Qy 457 A 457

Db 487 A 487

# RESULT 13

BG754454

LOCUS BG754454 873 bp mRNA linear EST 15-MAY-2001

DEFINITION 602710060F1 NIH\_MGC\_48 Homo sapiens cDNA clone IMAGE:4846527 5', mRNA sequence.

ACCESSION BG754454

VERSION BG754454.1 GI:14065094

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 873)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis M. Staudt, M.D., Ph.D.

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1687 row: h column: 16

High quality sequence stop: 821.

## FEATURES

source

Location/Qualifiers

1..873

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:4846527"

/tissue\_type="primary B-cells from tonsils (cell line)"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_48"

/note="Organ: B-cells; Vector: pOTB7; Site\_1: XhoI;

Site\_2: EcoRI; cDNA made by oligo-dT priming.

Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Size-selected >500bp for average insert size 1.8kb. Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies).

Note: this is a NIH\_MGC Library."

ORIGIN

Query Match 81.9%; Score 378.2; DB 4; Length 873;  
 Best Local Similarity 90.6%; Pred. No. 4.6e-85;  
 Matches 434; Conservative 0; Mismatches 23; Indels 22; Gaps 2;

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Qy      1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db      37 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 96

Qy     61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db     97 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 156

Qy    121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCC 180
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    157 TGTAAGGGTTCTGGATACAGCTTTACCAACTACTGGATCGGCTGGGTGCGCCAGATGCC 216

Qy    181 GGGAAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    217 GGGAAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTAATACCAGATACAGC 276

Qy    241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
        |||||||||||||||||||| || ||||||||||||||||||||||||||||||||
Db    277 CCGTCCTTCCAAGGCCAGGTCATTATTTTCAGCCGACAAGTCCATCAGTACCGCCTACCTG 336

Qy    301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGA----- 351
        | ||||||||||||||||||||||||||||||||||||||||||||||||
Db    337 CTATGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGACATGGTGGT 396

Qy    352 -----GACCAACTGGGCCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACC 399
        | | | | | ||||||||||||||||||||||||||||||||||||
Db    397 TACTATGATTCGGGGACCCCCGACTACATTGACTCCTGGGGCCAGGGAACCCTAGTCACC 456

Qy    400 GTCTCCTCAGCCTCCACCAAGGGGCCCATCGGT-CTTCCCCCTGGCACCCCTCCTCCAAGA 457
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
Db    457 GTCTCCTCAGCCTCCACCAAGGGGCCCATCGGTGCTTCCCCCTGGCACCCCTCCTCCAAGA 515
  
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RESULT 14

CR545747

LOCUS CR545747 573 bp mRNA linear EST 07-JUL-2004

DEFINITION DKFZp470L0323\_r1 470 (synonym: pliv1) Pongo pygmaeus cDNA clone  
 DKFZp470L0323 5', mRNA sequence.

ACCESSION CR545747

VERSION CR545747.1 GI:49897682

KEYWORDS EST.

SOURCE Pongo pygmaeus (orangutan)

ORGANISM Pongo pygmaeus

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Pongo.

REFERENCE 1 (bases 1 to 573)

AUTHORS Wambutt,R., Heubner,D., Mewes,H.W., Weil,B., Amid,C., Osanger,A.,  
 Fobo,G., Han,M. and Wiemann,S.

TITLE Pongo pygmaeus mRNA (Wambutt,R., Heubner,D., Mewes,H.W., et al.)

JOURNAL Unpublished (2004)

COMMENT Contact: MIPS

MIPS



Db

|||||  
478 ACCAAGGGCCCATCGGTCTTCCCCCTGGCGTCCTGCTCCAGGA 520

RESULT 15

BM007733

LOCUS BM007733 835 bp mRNA linear EST 30-OCT-2001

DEFINITION 603617180F1 NIH\_MGC\_113 Homo sapiens cDNA clone IMAGE:5441155 5', mRNA sequence.

ACCESSION BM007733

VERSION BM007733.1 GI:16522087

KEYWORDS EST.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 835)

AUTHORS NIH-MGC <http://mgc.nci.nih.gov/>.

TITLE National Institutes of Health, Mammalian Gene Collection (MGC)

JOURNAL Unpublished (1999)

COMMENT Contact: Robert Strausberg, Ph.D.

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Dr. Mark Watson

cDNA Library Preparation: Ling Hong/Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Incyte Genomics, Inc.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at:

<http://image.llnl.gov>

Plate: LLCM1914 row: p column: 20

High quality sequence stop: 832.

FEATURES

source

Location/Qualifiers

1..835

/organism="Homo sapiens"

/mol\_type="mRNA"

/db\_xref="taxon:9606"

/clone="IMAGE:5441155"

/lab\_host="DH10B (phage-resistant)"

/clone\_lib="NIH\_MGC\_113"

/note="Organ: spleen; Vector: pOTB7; Site\_1: XhoI; Site\_2: EcoRI; cDNA made by oligo-dT priming. Directionally cloned into EcoRI/XhoI sites using the following 5' adaptor: GGCACGAG(G). Library constructed by Ling Hong in the laboratory of Gerald M. Rubin (University of California, Berkeley) using ZAP-cDNA synthesis kit (Stratagene) and Superscript II RT (Life Technologies). Note: this is a NIH\_MGC Library."

ORIGIN

Query Match 80.7%; Score 372.8; DB 4; Length 835;

Best Local Similarity 91.7%; Pred. No. 1.1e-83;

Matches 433; Conservative 0; Mismatches 22; Indels 17; Gaps 3;

Qy

1 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 60

|||||

Db

31 ATGGGGTCAACCGCCATCCTCGCCCTCCTCCTGGCTGTTCTCCAAGGAGTCTGTGCCGAG 90

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Qy      61 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 120
      |||
Db      91 GTGCAGCTGGTGCAGTCTGGAGCAGAGGTGAAAAAGCCCGGGGAGTCTCTGAAGATCTCC 150

Qy     121 TGTAAGGGTTCTGGATACAGCTTTACCGGCTACTGGATCGGCTGGGTGCGCCAGATGCCC 180
      |||
Db     151 TGTAAGGGTTCTGGATACAGTTTTACCAGTCACTGGATCGGCTGGGTGCGCCAGATGCCC 210

Qy     181 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACCACATACAGC 240
      |||
Db     211 GGGAAAGGCCTGGAGTGGATGGGGATCATCTATCCTGGTGACTCTGATACGACATACAGC 270

Qy     241 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGCCGACAAGTCCATCAGCACCGCCTACCTG 300
      |||
Db     271 CCGTCCTTCCAAGGCCAGGTCACCATCTCAGTCGACAAGTCCATCAATACCGCCTACCTG 330

Qy     301 CAGTGGAGCAGCCTGAAGGCCTCGGACACCGCCATGTATTACTGTGCGAGAGA----- 353
      |||
Db     331 GAGTGGCGCAGTCTGAAGGCCTCGGACACCGCCATGTATTATTGTGCGAGACATCTCAGA 390

Qy     354 -----CCAAGTGGGCTCTTTGACTACTGGGGCCAGGGAACCCTGGTCACCGTCTCC 405
      |||
Db     391 CCTGCTACTCAACTCCAACCTTTTGACCACTGGGGCCA-GGAACCCTGGTCACCGTCTCC 449

Qy     406 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGGCACCCCTCCTCCAAGA 457
      |||
Db     450 TCAGCCTCCACCAAGGGCCCATCGGTCTTCCCCCTGG-ACCCTCCTCCAAGA 500

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Job time : 2408.82 secs

OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 2348.55 Seconds  
(without alignments)  
8839.572 Million cell updates/sec

Title: US-08-728-463B-208  
Perfect score: 439  
Sequence: 1 ATGGACATGGAGTTCCCCGT.....CCCGCCATCTGATGAAGCTT 439

Scoring table: IDENTITY\_NUC  
Gapop 10.0 , Gapext 1.0

Searched: 4526729 seqs, 23644849745 residues

Total number of hits satisfying chosen parameters: 9053458

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : GenEmbl:\*  
1: gb\_ba:\*  
2: gb\_htg:\*  
3: gb\_in:\*  
4: gb\_om:\*  
5: gb\_ov:\*  
6: gb\_pat:\*  
7: gb\_ph:\*  
8: gb\_pl:\*  
9: gb\_pr:\*  
10: gb\_ro:\*  
11: gb\_sts:\*  
12: gb\_sy:\*  
13: gb\_un:\*  
14: gb\_vi:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	% Match	Query Length	ID	Description
1	439	100.0	439	6 AR161377	AR161377 Sequence
2	439	100.0	439	6 AR369970	AR369970 Sequence
3	439	100.0	439	6 BD096604	BD096604 Transgeni

4	394	89.7	979	9	BC073763	BC073763 Homo sapi
5	392.4	89.4	711	6	CQ795434	CQ795434 Sequence
6	392.4	89.4	953	9	BC005332	BC005332 Homo sapi
7	386	87.9	936	9	BC073764	BC073764 Homo sapi
8	384.4	87.6	824	9	AY510107	AY510107 Homo sapi
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18	376.4	85.7	438	6	BD015544	BD015544 Human mon
19	376.4	85.7	438	6	BD094922	BD094922 Human mon
20	376.4	85.7	728	6	BD182353	BD182353 Anti CD40
21	376.4	85.7	728	6	AX327729	AX327729 Sequence
22	374.8	85.4	827	9	AY510106	AY510106 Homo sapi
23	373.2	85.0	716	6	AX327727	AX327727 Sequence
24	373.2	85.0	962	9	BC034141	BC034141 Homo sapi
25	370	84.3	960	9	BC056256	BC056256 Homo sapi
26	368.4	83.9	714	6	BD185290	BD185290 Uses of a
27	368.4	83.9	714	6	BD273726	BD273726 Human mon
28	368.4	83.9	714	6	AR454403	AR454403 Sequence
29	368.4	83.9	714	6	AX616570	AX616570 Sequence
30	368.4	83.9	948	9	BC073791	BC073791 Homo sapi
31	366.8	83.6	956	9	BC029444	BC029444 Homo sapi
32	365.2	83.2	698	6	BD182351	BD182351 Anti CD40
33	365.2	83.2	698	6	AX327725	AX327725 Sequence
34	365.2	83.2	729	6	E40896	E40896 Humanized a
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36	363.4	82.8	429	9	HUMIGKW	M74019 Homo sapien
37	362.2	82.5	441	9	HSU43767	U43767 Human immun
38	361.8	82.4	986	9	BC067092	BC067092 Homo sapi
39	358.8	81.7	938	9	HSA010442	AJ010442 Homo sapi
40	358	81.5	439	9	HSU43764	U43764 Human immun
41	357.8	81.5	420	6	AR161429	AR161429 Sequence
42	357.8	81.5	420	6	AR369974	AR369974 Sequence
43	357.8	81.5	420	6	BD096608	BD096608 Transgeni
44	355.4	81.0	737	6	AX384872	AX384872 Sequence
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#### ALIGNMENTS

##### RESULT 1

AR161377

LOCUS AR161377 439 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 360 from patent US 6255458.

ACCESSION AR161377

VERSION AR161377.1 GI:16227237

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 439)  
AUTHORS Lonberg,N. and Kay,R.M.  
TITLE High affinity human antibodies and human antibodies against digoxin  
JOURNAL Patent: US 6255458-A 360 03-JUL-2001;  
FEATURES Location/Qualifiers  
source 1. .439  
/organism="unknown"  
/mol\_type="unassigned DNA"

# ORIGIN

Query Match 100.0%; Score 439; DB 6; Length 439;  
Best Local Similarity 100.0%; Pred. No. 4.9e-129;  
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy    421 CCGCCATCTGATGAAGCTT 439
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Db    421 CCGCCATCTGATGAAGCTT 439

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## RESULT 2

AR369970

LOCUS AR369970 439 bp DNA linear PAT 12-SEP-2003  
DEFINITION Sequence 208 from patent US 6300129.  
ACCESSION AR369970  
VERSION AR369970.1 GI:34606410  
KEYWORDS .  
SOURCE Unknown.  
ORGANISM Unknown.  
Unclassified.



REFERENCE 1 (bases 1 to 439)  
 AUTHORS Lonberg,N. and Kay,R.M.  
 TITLE Transgenic non-human animals for producing heterologous antibodies  
 JOURNAL Patent: US 6300129-A 208 09-OCT-2001;  
 FEATURES Location/Qualifiers  
     source 1. .439  
             /organism="unknown"  
             /mol\_type="genomic DNA"

# ORIGIN

Query Match 100.0%; Score 439; DB 6; Length 439;  
 Best Local Similarity 100.0%; Pred. No. 4.9e-129;  
 Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Db      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

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Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
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Db      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

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Qy      421 CCGCCATCTGATGAAGCTT 439
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Db      421 CCGCCATCTGATGAAGCTT 439
  
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# RESULT 3

BD096604

LOCUS BD096604 439 bp DNA linear PAT 27-AUG-2002

DEFINITION Transgenic non-human animals capable of producing heterologous antibodies.

ACCESSION BD096604

VERSION BD096604.1 GI:22642192

KEYWORDS JP 2001527386-A/131.

SOURCE unidentified

ORGANISM unidentified

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unclassified.
REFERENCE      1 (bases 1 to 439)
AUTHORS        Lonberg,N. and Kay,R.M.
TITLE          Transgenic non-human animals capable of producing heterologous
                antibodies
JOURNAL        Patent: JP 2001527386-A 131 25-DEC-2001;
                GENPHARM INTERNATIONAL
COMMENT        OS   Unidentified
                PN   JP 2001527386-A/131
                PD   25-DEC-2001
                PF   01-DEC-1997 JP 1998525687
                PR   02-DEC-1996 US      08/758417
                PI   NILS LONBERG,ROBERT M KAY
                PC   C12N5/00,C12N5/28,C12N5/24,C12N5/10,C07K16/00,A61K39/00 CC
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                CC   Topology: Linear;
                CC   Transgenic non-human animals capable of
                producing heterologous
                CC   antibodies
                FH   Key          Location/Qualifiers
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                FT          /organism='Unidentified'.
FEATURES              Location/Qualifiers
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ORIGIN

Query Match          100.0%; Score 439; DB 6; Length 439;
Best Local Similarity 100.0%; Pred. No. 4.9e-129;
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
        ||||||||||||||||||||||||||||||||||||||||||||||||||||||||
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Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
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Qy      121 GTCACCATCACTTGTGCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
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Db      121 GTCACCATCACTTGTGCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy      181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
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Qy      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
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 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420  
 Qy 421 CCGCCATCTGATGAAGCTT 439  
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 Db 421 CCGCCATCTGATGAAGCTT 439

#### RESULT 4

BC073763

LOCUS BC073763 979 bp mRNA linear PRI 30-JUN-2004

DEFINITION Homo sapiens cDNA clone MGC:88770 IMAGE:4575800, complete cds.

ACCESSION BC073763

VERSION BC073763.1 GI:49258097

KEYWORDS MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 979)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,  
 Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,  
 Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,  
 Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,  
 Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,  
 Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,  
 Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,  
 Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,  
 Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,  
 McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,  
 Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,  
 Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,  
 Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S.,  
 Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,  
 Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,  
 Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,  
 Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,  
 Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.

TITLE Generation and initial analysis of more than 15,000 full-length  
 human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

PUBMED 12477932

REFERENCE 2 (bases 1 to 979)

AUTHORS Strausberg,R.

TITLE Direct Submission

JOURNAL Submitted (23-JUN-2004) National Institutes of Health, Mammalian  
 Gene Collection (MGC), Cancer Genomics Office, National Cancer  
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,  
 USA

REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>

COMMENT Contact: MGC help desk

Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)

Tissue Procurement: Louis Staudt

cDNA Library Preparation: Rubin Laboratory

cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)

DNA Sequencing by: Sequencing Group at the Stanford Human Genome

Center, Stanford University School of Medicine, Stanford, CA 94305  
Web site: <http://www-shgc.stanford.edu>  
Contact: (Dickson, Mark) [mcd@paxil.stanford.edu](mailto:mcd@paxil.stanford.edu)  
Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers, R. M.

Clone distribution: MGC clone distribution information can be found through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>  
Series: IRAL Plate: 58 Row: c Column: 9  
This clone was selected for full length sequencing because it passed the following selection criteria: GenomeScan gene prediction, Similarity but not identity to protein.

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#### ORIGIN

Query Match 89.7%; Score 394; DB 9; Length 979;  
Best Local Similarity 94.2%; Pred. No. 1.2e-114;  
Matches 409; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

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 Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420  
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 Db 375 GGCGGAGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 434  
 Qy 421 CCGCCATCTGATGA 434  
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 Db 435 CCGCCATCTGATGA 448

# RESULT 5

CQ795434

LOCUS CQ795434 711 bp DNA linear PAT 19-APR-2004

DEFINITION Sequence 22 from Patent WO2004024927.

ACCESSION CQ795434

VERSION CQ795434.1 GI:46407524

KEYWORDS

SOURCE synthetic construct

ORGANISM synthetic construct  
 artificial sequences.

REFERENCE 1

AUTHORS Gorr,G., Launhardt,H. and Berg,B.

TITLE Protein production method

JOURNAL Patent: WO 2004024927-A 22 25-MAR-2004;

Greenovation Biotech GmbH (DE)

FEATURES

source

Location/Qualifiers

1. .711

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accession number BC005332 (bp 21-731), indicated on page

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ORIGIN

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Best Local Similarity 94.0%; Pred. No. 4e-114;

Matches 408; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

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 Qy 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240  
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[illegible]

### RESULT 6

BC005332

LOCUS	BC005332	953 bp	mRNA	linear	PRI 03-OCT-2003
-------	----------	--------	------	--------	-----------------

DEFINITION Homo sapiens cDNA clone MGC:12418 IMAGE:3934658, complete cds.

ACCESSION BC005332

VERSION BC005332.1 GI:13529115

**KEYWORDS** MGC.

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 953)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G., Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D., Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K., Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F., Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L., Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L., Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S., Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J., Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J., McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S., Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W., Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A., Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S., Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y., Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D., Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M., Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E., Schnerch,A., Schein,J.E., Jones,S.J. and Marra,M.A.

TITLE      Generation and initial analysis of more than 15,000 full-length  
             human and mouse cDNA sequences

JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)

MEDLINE 22388257

PUBMED 12477932

REFERENCE 2 (bases 1 to 953)

AUTHORS      Strausberg, R.

TITLE Direct Submission



```

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# RESULT 7

BC073764

LOCUS BC073764 936 bp mRNA linear PRI 30-JUN-2004

DEFINITION Homo sapiens cDNA clone MGC:88771 IMAGE:4576136, complete cds.

ACCESSION BC073764

VERSION BC073764.1 GI:49256424

KEYWORDS MGC

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1 (bases 1 to 936)

AUTHORS Strausberg,R.L., Feingold,E.A., Grouse,L.H., Derge,J.G.,  
Klausner,R.D., Collins,F.S., Wagner,L., Shenmen,C.M., Schuler,G.D.,  
Altschul,S.F., Zeeberg,B., Buetow,K.H., Schaefer,C.F., Bhat,N.K.,  
Hopkins,R.F., Jordan,H., Moore,T., Max,S.I., Wang,J., Hsieh,F.,  
Diatchenko,L., Marusina,K., Farmer,A.A., Rubin,G.M., Hong,L.,  
Stapleton,M., Soares,M.B., Bonaldo,M.F., Casavant,T.L.,  
Scheetz,T.E., Brownstein,M.J., Usdin,T.B., Toshiyuki,S.,  
Carninci,P., Prange,C., Raha,S.S., Loquellano,N.A., Peters,G.J.,  
Abramson,R.D., Mullahy,S.J., Bosak,S.A., McEwan,P.J.,  
McKernan,K.J., Malek,J.A., Gunaratne,P.H., Richards,S.,  
Worley,K.C., Hale,S., Garcia,A.M., Gay,L.J., Hulyk,S.W.,  
Villalon,D.K., Muzny,D.M., Sodergren,E.J., Lu,X., Gibbs,R.A.,  
Fahey,J., Helton,E., Kettelman,M., Madan,A., Rodrigues,S.,  
Sanchez,A., Whiting,M., Madan,A., Young,A.C., Shevchenko,Y.,  
Bouffard,G.G., Blakesley,R.W., Touchman,J.W., Green,E.D.,  
Dickson,M.C., Rodriguez,A.C., Grimwood,J., Schmutz,J., Myers,R.M.,  
Butterfield,Y.S., Krzywinski,M.I., Skalska,U., Smailus,D.E.,



TITLE Schnerch, A., Schein, J.E., Jones, S.J. and Marra, M.A.  
 Generation and initial analysis of more than 15,000 full-length  
 human and mouse cDNA sequences  
 JOURNAL Proc. Natl. Acad. Sci. U.S.A. 99 (26), 16899-16903 (2002)  
 PUBMED 12477932  
 REFERENCE 2 (bases 1 to 936)  
 AUTHORS Strausberg, R.  
 TITLE Direct Submission  
 JOURNAL Submitted (23-JUN-2004) National Institutes of Health, Mammalian  
 Gene Collection (MGC), Cancer Genomics Office, National Cancer  
 Institute, 31 Center Drive, Room 11A03, Bethesda, MD 20892-2590,  
 USA  
 REMARK NIH-MGC Project URL: <http://mgc.nci.nih.gov>  
 COMMENT Contact: MGC help desk  
 Email: [cgapbs-r@mail.nih.gov](mailto:cgapbs-r@mail.nih.gov)  
 Tissue Procurement: Louis Staudt  
 cDNA Library Preparation: Rubin Laboratory  
 cDNA Library Arrayed by: The I.M.A.G.E. Consortium (LLNL)  
 DNA Sequencing by: Sequencing Group at the Stanford Human Genome  
 Center, Stanford University School of Medicine, Stanford, CA 94305  
 Web site: <http://www-shgc.stanford.edu>  
 Contact: (Dickson, Mark) [mcd@paxil.stanford.edu](mailto:mcd@paxil.stanford.edu)  
 Dickson, M., Schmutz, J., Grimwood, J., Rodriguez, A., and Myers,  
 R. M.

Clone distribution: MGC clone distribution information can be found  
 through the I.M.A.G.E. Consortium/LLNL at: <http://image.llnl.gov>  
 Series: IRAL Plate: 58 Row: c Column: 10  
 This clone was selected for full length sequencing because it  
 passed the following selection criteria: GenomeScan gene  
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Query Match 87.9%; Score 386; DB 9; Length 936;  
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ORIGIN

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Matches 403;  Conservative 0;  Mismatches 31;  Indels 0;  Gaps 0;

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RESULT 9

S59162

LOCUS

S59162

433 bp

mRNA

linear

PRI 26-JUN-2000



[illegible]

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# ORIGIN

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Qy	181	AAACCAGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
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AX305000  
 LOCUS AX305000 974 bp DNA linear PAT 11-DEC-2001  
 DEFINITION Sequence 29 from Patent EP1158004.  
 ACCESSION AX305000  
 VERSION AX305000.1 GI:17644678  
 KEYWORDS  
 SOURCE Homo sapiens (human)

ORGANISM Homo sapiens  
 Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1  
 AUTHORS Takashi,T., Katsunari,T.P. and Nobuaki,H.  
 TITLE Human monoclonal antibody against a costimulatory signal  
 transduction molecule ailim and pharmaceutical use thereof  
 JOURNAL Patent: EP 1158004-A 29 28-NOV-2001;  
 Japan Tobacco Inc. (JP)

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Query Match 86.8%; Score 381.2; DB 6; Length 974;  
 Best Local Similarity 92.4%; Pred. No. 1.5e-110;  
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# RESULT 12

AX306529

LOCUS AX306529 974 bp DNA linear PAT 11-DEC-2001

DEFINITION Sequence 29 from Patent WO0187981.

ACCESSION AX306529

VERSION AX306529.1 GI:17645749

KEYWORDS

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

REFERENCE 1

AUTHORS Tsuji, T., Tezuka, K. and Hori, N.

TITLE Human monoclonal antibody against a costimulatory signal  
transduction molecule ailim and pharmaceutical use thereof

JOURNAL Patent: WO 0187981-A 29 22-NOV-2001;  
Japan Tobacco Inc. (JP)

FEATURES

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CDS

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3'UTR

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ORIGIN

Query Match 86.8%; Score 381.2; DB 6; Length 974;  
Best Local Similarity 92.4%; Pred. No. 1.5e-110;  
Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;





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C12N15/02,  
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molecule AILIM  
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FT CDS (39)..(749)  
FT 3'UTR (750)..(974)  
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Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
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Db	159	GTCACCATCACTTGTTCGGGCGAGTCAGGGTATTAGCAGGTTGTTAGCCTGGTATCAGCAG	218
Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
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Qy	361	GGCCAGGGGACCAAGCTGGAGATCAAACGAACGTGGCTGCACCATCTGTCTTCATCTTC	420
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Qy	421	CCGCCATCTGATGA	434
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## RESULT 14

AK129817

LOCUS AK129817 928 bp mRNA linear PRI 10-SEP-2003

DEFINITION Homo sapiens cDNA FLJ26306 fis, clone DMC08285.

ACCESSION AK129817

VERSION AK129817.1 GI:34526437

KEYWORDS oligo capping; fis (full insert sequence).

SOURCE Homo sapiens (human)

ORGANISM Homo sapiens

Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
Mammalia; Eutheria; Primates; Catarrhini; Hominidae; Homo.

## REFERENCE 1

AUTHORS Ota, T., Nakagawa, S., Senoh, A., Mizuguchi, H., Inagaki, H., Suzuki, Y.,  
Hata, H., Nakagawa, K., Mizuno, S., Morinaga, M., Kawamura, M.,  
Sugiyama, T., Irie, R., Otsuki, T., Sato, H., Nishikawa, T.,  
Sugiyama, A., Kawakami, B., Nagai, K., Isogai, T. and Sugano, S.

TITLE NEDO human cDNA sequencing project

JOURNAL Unpublished

## REFERENCE 2 (bases 1 to 928)

AUTHORS Sugano, S. and Suzuki, Y.

TITLE Direct Submission

JOURNAL Submitted (31-JUL-2003) Sumio Sugano, Institute of Medical Science,  
University of Tokyo, Laboratory of Genome Structure, Human Genome  
Center; Shirokane-dai, 4-6-1, Minato-ku, Tokyo 108-8639, Japan  
(E-mail: flcdna@ims.u-tokyo.ac.jp, Tel: 81-3-5449-5286,  
Fax: 81-3-5449-5416)COMMENT NEDO human cDNA sequencing project supported by Ministry of  
Economy, Trade and Industry of Japan; cDNA full insert sequencing:  
Research Association for Biotechnology (RAB); cDNA library  
construction and 5'-end one pass sequencing: Institute of Medical  
Science, University of Tokyo, Laboratory of Genome Structure, Human  
Genome Center; 3'-end one pass sequencing: RAB; clone selection for  
full insert sequencing: RAB and Helix Research Institute.

## FEATURES

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## ORIGIN

Query Match 86.5%; Score 379.6; DB 9; Length 928;  
Best Local Similarity 92.2%; Pred. No. 5e-110;  
Matches 400; Conservative 0; Mismatches 34; Indels 0; Gaps 0;

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# RESULT 15

AR161402

LOCUS AR161402 3819 bp DNA linear PAT 17-OCT-2001

DEFINITION Sequence 393 from patent US 6255458.

ACCESSION AR161402

VERSION AR161402.1 GI:16227274

KEYWORDS

SOURCE Unknown.

ORGANISM Unknown.

Unclassified.

REFERENCE 1 (bases 1 to 3819)

AUTHORS Lonberg,N. and Kay,R.M.

TITLE High affinity human antibodies and human antibodies against digoxin

JOURNAL Patent: US 6255458-A 393 03-JUL-2001;

FEATURES Location/Qualifiers

source 1..3819

/organism="unknown"

/mol\_type="unassigned DNA"

## ORIGIN

Query Match 86.1%; Score 377.8; DB 6; Length 3819;

Best Local Similarity 92.5%; Pred. No. 1.6e-109;

Matches 397; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

Qy 6 CATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65  
 |||||  
 Db 2445 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCCCAGGTTCAGATG 2504  
 Qy 66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125  
 |||||  
 Db 2505 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 2564

Qy 126 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185  
 |||  
 Db 2565 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAAACC 2624  
 Qy 186 AGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245  
 || |||  
 Db 2625 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 2684  
 Qy 246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305  
 |||  
 Db 2685 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 2744  
 Qy 306 TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA 365  
 |||  
 Db 2745 TGAAGATTTTGCAACTTACTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 2804  
 Qy 366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 425  
 |||  
 Db 2805 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 2864  
 Qy 426 ATCTGATGA 434  
 |||  
 Db 2865 ATCTGATGA 2873

Search completed: December 2, 2004, 17:01:16  
 Job time : 2349.55 secs

GenCore version 5.1.6  
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OM nucleic - nucleic search, using sw model

Run on: December 2, 2004, 12:19:02 ; Search time 339.909 Seconds  
 (without alignments)  
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Title: US-08-728-463B-208  
 Perfect score: 439  
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Scoring table: IDENTITY\_NUC  
 Gapop 10.0 , Gapext 1.0

Searched: 4134886 seqs, 2624710521 residues

Total number of hits satisfying chosen parameters: 8269772

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 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

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 5: geneseqn2001bs:\*  
 6: geneseqn2002as:\*  
 7: geneseqn2002bs:\*  
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 10: geneseqn2003cs:\*  
 11: geneseqn2003ds:\*  
 12: geneseqn2004s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	% Query Match	Length	DB	ID	Description
1	439	100.0	439	2	AAT73443	Aat73443 Human imm
2	437.4	99.6	439	2	AAZ21995	Aaz21995 Partial n
3	409	93.2	409	2	AAV39241	Aav39241 Functiona
4	392.4	89.4	711	12	ADM32966	Adm32966 Nucleotid
5	389	88.6	463	8	AAD56221	Aad56221 Human AB-
6	389	88.6	6082	8	AAD56212	Aad56212 Human AB-
7	385.8	87.9	463	8	AAD56219	Aad56219 Human AB-
8	385.8	87.9	6082	8	AAD56211	Aad56211 Human AB-
9	381.2	86.8	817	3	AAA27389	Aaa27389 Human IGF
10	381.2	86.8	974	6	AAS99473	Aas99473 Anti-huma
11	377.8	86.1	3819	2	AAT78825	Aat78825 Kappa lig
12	377.8	86.1	3819	2	AAV39266	Aav39266 Plasmid p
13	377.8	86.1	3819	2	AAZ22020	Aaz22020 Nucleotid
14	376.4	85.7	438	4	AAH41157	Aah41157 Human cod
15	376.4	85.7	728	8	ABT31882	Abt31882 Anti-CD40
16	376.4	85.7	1106	6	ABQ54241	Abq54241 Human ova
17	373.6	85.1	705	10	ADE28412	Ade28412 Human ant
18	373.2	85.0	981	12	ADP07904	Adp07904 Human imm
19	373	85.0	711	11	ADM47072	Adm47072 Mouse ant
20	370	84.3	871	8	ACC46532	Acc46532 Human dit
21	368.8	84.0	705	10	ADE28428	Ade28428 Human ant
22	368.4	83.9	714	3	AAA46899	Aaa46899 DNA encod
23	368.4	83.9	714	10	AAD54350	Aad54350 Human 11.
24	365.2	83.2	698	8	ABT31880	Abt31880 Anti-CD40
25	365.2	83.2	729	3	AAA11630	Aaa11630 Human imm
26	365.2	83.2	729	6	ABL46009	Abl46009 Humanised
27	365.2	83.2	1066	2	AAQ49943	Aaq49943 Human ant
28	360.4	82.1	490	9	ACH50647	Ach50647 Human mam
29	357.8	81.5	420	2	AAT73445	Aat73445 Human imm
30	357.8	81.5	420	2	AAV39293	Aav39293 Synthetic
31	357.8	81.5	420	2	AAZ22047	Aaz22047 Nucleotid
32	356.8	81.3	384	10	AAL56203	Aal56203 Human C40
33	355.6	81.0	1526	12	ADN97514	Adn97514 Artificia
34	355.4	81.0	737	6	AAD31829	Aad31829 Human pan
35	353	80.4	928	4	AAH26799	Aah26799 Human imm

36	352.8	80.4	945	2	AAQ20067	Aaq20067 Encodes l
37	352.4	80.3	944	4	AAF44892	Aaf44892 Human bre
38	352.2	80.2	928	3	AAA27393	Aaa27393 Human IGF
39	352.2	80.2	936	3	AAA27390	Aaa27390 Human IGF
40	351.4	80.0	684	4	AAH30048	Aah30048 TRO005 ka
41	351.2	80.0	388	2	AAT73441	Aat73441 Human imm
42	351.2	80.0	388	2	AAV39239	Aav39239 Functiona
43	351.2	80.0	388	2	AAZ21993	Aaz21993 Partial n
44	350.8	79.9	19035	2	AAV61794	Aav61794 Traget pl
45	350.6	79.9	917	3	AAA27381	Aaa27381 Human IGF

#### ALIGNMENTS

#### RESULT 1

AAT73443

ID AAT73443 standard; DNA; 439 BP.

XX

AC AAT73443;

XX

DT 03-DEC-1997 (first entry)

XX

DE Human immunoglobulin light chain variable region partial transcript.

XX

KW Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;

KW transgenic; mouse; CD4; antibody; autoimmune; inflammatory;

KW transplant rejection; ss.

XX

OS Homo sapiens.

XX

PN W09713852-A1.

XX

PD 17-APR-1997.

XX

PF 10-OCT-1996; 96WO-US016433.

XX

PR 10-OCT-1995; 95US-00544404.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Kay RM;

XX

DR WPI; 1997-235888/21.

XX

PT Novel anti-CD4 antibody produced by transgenic mice - used in the

PT treatment of auto-immune disease etc.

XX

PS Claim 44; Page 256; 396pp; English.

XX

CC A novel composition has been developed which comprises an immunoglobulin  
 CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M  
 CC -1 for binding to a predetermined human antigen. The present sequence  
 CC represents a human light chain variable region partial nucleotide  
 CC sequence, 4D1 kappa, which encodes an amino acid sequence from a claimed  
 CC immunoglobulin that specifically binds human CD4. The anti-CD4 antibodies  
 CC may be used in therapeutic and diagnostic applications, especially for

CC the treatment of human diseases. These antibodies reduce activity of CD4  
CC cells and reduce undesirable autoimmune reactions, inflammatory response  
CC and transplant rejection. Transgenic animals are capable of producing  
CC heterologous antibodies of multiple isotypes by undergoing isotype  
CC switching. These animals produce a first Ig type that is necessary for  
CC antigen-stimulated B-cell maturation and can switch to encode and produce  
CC one or more subsequent heterologous isotypes

XX

SQ Sequence 439 BP; 100 A; 122 C; 106 G; 111 T; 0 U; 0 Other;

Query Match 100.0%; Score 439; DB 2; Length 439;  
Best Local Similarity 100.0%; Pred. No. 6e-127;  
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy      1 ATGGACATGGAGTTCCCCGTTCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
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Db      1 ATGGACATGGAGTTCCCCGTTCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120

Qy      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
      |||
Db      121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180

Qy      181 AAACCAGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db      181 AAACCAGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db      241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
      |||
Db      301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360

Qy      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
      |||
Db      361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy      421 CCGCCATCTGATGAAGCTT 439
      |||
Db      421 CCGCCATCTGATGAAGCTT 439
```

## RESULT 2

AAZ21995

ID AAZ21995 standard; DNA; 439 BP.

XX

AC AAZ21995;

XX

DT 24-NOV-1999 (first entry)

XX

DE Partial nucleotide sequence for a functional transcript 4D1-kappa.

XX





Qy 121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180  
 |||  
 Db 121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180  
 |||  
 Qy 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240  
 |||  
 Db 181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240  
 |||  
 Qy 241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300  
 |||  
 Db 241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300  
 |||  
 Qy 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360  
 |||  
 Db 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360  
 |||  
 Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420  
 |||  
 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420  
 |||  
 Qy 421 CCGCCATCTGATGAAGCTT 439  
 |||  
 Db 421 CCGCCATCTGATGAAGCTT 439  
 |||

# RESULT 3

AAV39241

ID AAV39241 standard; DNA; 409 BP.

XX

AC AAV39241;

XX

DT 18-DEC-1998 (first entry)

XX

DE Functional kappa transcript isolated from transgenic cell line 4D1.

XX

KW Transgenic animal; human heterologous antibody; transgene;  
 KW isotype switching; neutrophil efflux; reperfusion injury; CD4 binding;  
 KW autoimmune reaction; inflammatory response; transplant rejection;  
 KW acid induced lung injury; acute adult respiratory distress syndrome;  
 KW ARDS; vasculitis; septic shock; allergic reaction; asthma;  
 KW cystic fibrosis; ss.

XX

OS Synthetic.

OS Homo sapiens.

OS Mus sp.

XX

PN W09824884-A1.

XX

PD 11-JUN-1998.

XX

PF 01-DEC-1997; 97WO-US021803.

XX

PR 02-DEC-1996; 96US-00758417.

XX

PA (GENP-) GENPHARM INT.

XX

PI Lonberg N, Kay RM;  
XX  
DR WPI; 1998-333306/29.  
XX  
PT Hybridoma producing antibody specific for interleukin-8 - used to prevent  
PT efflux of neutrophils from vasculature, and treat reperfusion injury.  
XX  
PS Example 41; Page 304-305; 452pp; English.  
XX  
CC AAV39232-41 represent functional transcripts of a human IgGKappa anti-CD4  
CC antibody. The sequences are isolated from 5 different transgenic mouse  
CC hybridoma cell lines. The specification describes transgenic non-human  
CC animals, especially a mouse, which are capable of producing a human  
CC heterologous antibodies of multiple isotypes by undergoing isotype  
CC switching. The transgenic animals have human heavy and light chain  
CC transgenes. The transgenes are capable of functionally rearranging a  
CC heterologous diversity (D) gene in a variable-diversity-junction (V-D-J)  
CC recombination. The transgenes include a heavy chain transgene comprising  
CC at least one V, D and J gene segment, and one constant region gene  
CC segment. The immunoglobulin (Ig) light chain transgene comprises at least  
CC one V and J gene segment and one constant region gene segment. The gene  
CC segments are heterologous to the transgenic animal. The antibody can be  
CC used to prevent efflux of neutrophils from vasculature. It can also be  
CC used to treat reperfusion injury. CD4 binding antibodies are used to  
CC reduce undesirable autoimmune reactions, inflammatory responses and  
CC rejection of transplanted organs. The anti-IL-8 antibodies can reduce  
CC tissue damage and prolong survival in animal models of acute adult  
CC respiratory distress syndrome (ARDS) and acid induced lung injury. The  
CC anti-IL-8 antibodies can also be used for the treatment of vasculitis,  
CC septic shock, allergic reactions (e.g. asthma) and cystic fibrosis  
XX  
SQ Sequence 409 BP; 95 A; 112 C; 102 G; 100 T; 0 U; 0 Other;

Query Match 93.2%; Score 409; DB 2; Length 409;  
Best Local Similarity 100.0%; Pred. No. 1.4e-117;  
Matches 409; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Db	1	ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Db	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Qy	121	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Db	121	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Db	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Db	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300

Qy 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360  
 |||  
 Db 301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360  
 Qy 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTG 409  
 |||  
 Db 361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTG 409

RESULT 4

ADM32966

ID ADM32966 standard; DNA; 711 BP.

XX

AC ADM32966;

XX

DT 17-JUN-2004 (first entry)

XX

DE Nucleotide sequence of a human kappa light chain homologue.

XX

KW protein production; moss; protoplast; light chain; ss.

XX

OS Homo sapiens.

XX

PN WO2004024927-A1.

XX

PD 25-MAR-2004.

XX

PF 08-SEP-2003; 2003WO-EP009959.

XX

PR 12-SEP-2002; 2002EP-00020382.

PR 11-JUL-2003; 2003EP-00015881.

XX

PA (GREE-) GREENOVATION BIOTECH GMBH.

XX

PI Gorr G, Launhardt H, Berg B;

XX

DR WPI; 2004-270051/25.

XX

PT Achieving transient expression of at least an extracellular non-plant

PT protein from a heterologous nucleotide sequence in moss protoplast

PT comprises transiently introducing into the protoplast a heterologous

PT nucleic acid construct.

XX

PS Example 3; Page 34-35; 49pp; English.

XX

CC The specification describes a method for the production of extracellular  
 CC non-plant protein from moss protoplasts. The method comprises transiently  
 CC introducing into the protoplast a heterologous nucleic acid construct

CC comprising a heterologous nucleotide sequence operably linked to a

CC promoter. The heterologous nucleotide sequence encodes a protein selected

CC from heterodimer, fusion antibody, immunoglobulin or single-chain

CC antibody. The method is useful for protein production. The present

CC sequence represents DNA encoding a human kappa light chain homologue.

CC This polynucleotide is cloned and expressed in Physcomitrella patens

CC using the method of the invention.

XX

SQ Sequence 711 BP; 184 A; 196 C; 175 G; 156 T; 0 U; 0 Other;

Query Match 89.4%; Score 392.4; DB 12; Length 711;  
 Best Local Similarity 94.0%; Pred. No. 2.8e-112;  
 Matches 408; Conservative 0; Mismatches 26; Indels 0; Gaps 0;

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Qy      1 ATGGACATGGAGTTCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
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Db      1 ATGGACATGAGAGTCCTCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60

Qy     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
        |||||
Db     61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTGCGGAGACACA 120

Qy    121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
        |||||
Db    121 GTCACCATCACTTGTCTGGGCGAGTCAGGACATTAGCAATTATTTAGCCTGGTTTCAGCAG 180

Qy    181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
        |||||
Db    181 AAACCAGGGAAGCCCCCTAAGTCCCTGATCTATGGTGCATCCAGTTTGCAAAGTGGGGTC 240

Qy    241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
        |||||
Db    241 CAATCAAAGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300

Qy    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
        |||||
Db    301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATAAAAGTTATCCTGTCACTTTT 360

Qy    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
        |||||
Db    361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420

Qy    421 CCGCCATCTGATGA 434
        |||||
Db    421 CCGCCATCTGATGA 434
  
```

# RESULT 5

AAD56221

ID AAD56221 standard; DNA; 463 BP.

XX

AC AAD56221;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-051 PSMA antibody light chain variable region (VL) DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; light chain variable region; VL; gene; ds.

XX

OS Homo sapiens.

XX

FH Key Location/Qualifiers

FT CDS 11..391

FT /\*tag= a  
 FT /product= "PSMA antibody light chain variable region"  
 FT /note= "No stop codon"  
 FT ./partial  
 XX  
 PN WO2003034903-A2.  
 XX  
 PD 01-MAY-2003.  
 XX  
 PF 23-OCT-2002; 2002WO-US033944.  
 XX  
 PR 23-OCT-2001; 2001US-0335215P.  
 PR 07-MAR-2002; 2002US-0362747P.  
 PR 20-SEP-2002; 2002US-0412618P.  
 XX  
 PA (PSMA-) PSMA DEV CO LLC.  
 XX  
 PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;  
 XX  
 DR WPI; 2003-403281/38.  
 DR P-PSDB; AAE37206.  
 XX  
 PT Novel isolated antibody which binds to epitope on prostate specific  
 PT membrane antigen, and competitively inhibits binding of second antibody  
 PT to its target epitope on the antigen, useful for treating prostate  
 PT cancer.  
 XX  
 PS Claim 20; Page 232-233; 238pp; English.  
 XX  
 CC The invention relates to an antibody or its antigen-binding fragment  
 CC which specifically binds to epitope on prostate specific membrane antigen  
 CC (PSMA), and competitively inhibits the specific binding of a second  
 CC antibody to its target epitope on PSMA. The invention is useful for  
 CC diagnosing, treating or preventing PSMA-mediated disease such as prostate  
 CC cancer or non-prostate cancer bladder chosen from cancer including  
 CC transitional cell carcinoma, pancreatic cancer including pancreatic duct  
 CC carcinoma, lung cancer including non-small cell lung carcinoma, kidney  
 CC cancer including conventional renal cell carcinoma, sarcoma including  
 CC soft tissue sarcoma, breast cancer including breast carcinoma, brain  
 CC cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon  
 CC cancer including colonic carcinoma, testicular cancer including  
 CC testicular embryonal carcinoma, or melanoma including malignant melanoma.  
 CC The invention is useful also for inhibiting or enhancing folate hydrolase  
 CC activity of a folate hydrolase polypeptide, N-acetylated alpha-linked  
 CC acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide,  
 CC dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV  
 CC polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl  
 CC hydrolase polypeptide. The present sequence is human PSMA antibody light  
 CC chain variable region (VL) DNA  
 XX  
 SQ Sequence 463 BP; 106 A; 130 C; 111 G; 116 T; 0 U; 0 Other;

Query Match 88.6%; Score 389; DB 8; Length 463;  
 Best Local Similarity 94.2%; Pred. No. 2.8e-111;  
 Matches 404; Conservative 0; Mismatches 25; Indels 0; Gaps 0;

QY 6 CATGGAGTTCCTCGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65

Db	10	CATGAGGGTCCCTGCTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG	69
Qy	66	TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC	125
Db	70	TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC	129
Qy	126	CATCACTTGTCGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC	185
Db	130	CATCACTTGTCGGGCGAGTCAGGGCATTAGCCATTATTTAGCCTGGTTTCAGCAGAAACC	189
Qy	186	AGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	245
Db	190	AGGGAAAGCCCCTAAGTCCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGGGTCCCATC	249
Qy	246	AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC	305
Db	250	AAAGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTACAGCC	309
Qy	306	TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA	365
Db	310	TGAAGATTTTGCAACTTATTACTGCCAACAGTATAATAGTTTCCCGCTCACTTTTCGGCGG	369
Qy	366	GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC	425
Db	370	AGGGACCAAGGTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC	429
Qy	426	ATCTGATGA	434
Db	430	ATCTGATGA	438

# RESULT 6

AAD56212

ID AAD56212 standard; DNA; 6082 BP.

XX

AC AAD56212;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-051 PSMA antibody light chain DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; ds.

XX

OS Homo sapiens.

XX

PN WO2003034903-A2.

XX

PD 01-MAY-2003.

XX

PF 23-OCT-2002; 2002WO-US033944.

XX

PR 23-OCT-2001; 2001US-0335215P.

PR 07-MAR-2002; 2002US-0362747P.

XX

PA

XX

PI

XX

DR

XX

PT

XX

PS

XX

CC

XX

SQ

## Query Match

### Best Local Similarity

Matches 404; Conservative

Qy

Db

Qv

Qy

•

Ov

—

Db





[illegible]

Novel isolated antibody which binds to epitope on prostate specific membrane antigen, and competitively inhibits binding of second antibody to its target epitope on the antigen, useful for treating prostate cancer.

The invention relates to an antibody or its antigen-binding fragment which specifically binds to epitope on prostate specific membrane antigen (PSMA), and competitively inhibits the specific binding of a second antibody to its target epitope on PSMA. The invention is useful for diagnosing, treating or preventing PSMA-mediated disease such as prostate cancer or non-prostate cancer bladder chosen from cancer including transitional cell carcinoma, pancreatic cancer including pancreatic duct carcinoma, lung cancer including non-small cell lung carcinoma, kidney cancer including conventional renal cell carcinoma, sarcoma including soft tissue sarcoma, breast cancer including breast carcinoma, brain cancer including glioblastoma multiforme, neuroendocrine carcinoma, colon cancer including colonic carcinoma, testicular cancer including testicular embryonal carcinoma, or melanoma including malignant melanoma. The invention is useful also for inhibiting or enhancing folate hydrolase activity of a folate hydrolase polypeptide, N-acetylated alpha-linked acidic dipeptidase (NAALADase) activity of a NAALADase polypeptide, dipeptidyl dipeptidase IV activity of a dipeptidyl dipeptidase IV polypeptide, gamma-glutamyl hydrolase activity of a gamma-glutamyl hydrolase polypeptide. The present sequence is human PSMA antibody light chain variable region (VL) DNA

Sequence 463 BP; 109 A; 131 C; 108 G; 115 T; 0 U; 0 Other;

Query Match 87.9%; Score 385.8; DB 8; Length 463;  
Best Local Similarity 93.7%; Pred. No. 2.8e-110;  
Matches 402; Conservative 0; Mismatches 27; Indels 0; Gaps 0;

[illegible]

```

      |||
Db      310 TGAAGATTTTGCACCTTATTACTGCCAACAGTATAATAGTTACCCGATCACCTTCGGCCA 369
      |||
Qy      366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 425
      |||
Db      370 AGGGACACGACTGGAGATTAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 429
      |||
Qy      426 ATCTGATGA 434
      |||
Db      430 ATCTGATGA 438

```

RESULT 8

AAD56211

ID AAD56211 standard; DNA; 6082 BP.

XX

AC AAD56211;

XX

DT 07-AUG-2003 (first entry)

XX

DE Human AB-PG1-XG1-026 PSMA antibody light chain DNA.

XX

KW Human; Prostate specific membrane antigen; carcinoma; sarcoma; cancer;

KW PSMA; melanoma; therapy; N-acetylated alpha-linked acidic dipeptidase;

KW folate hydrolase; dipeptidyl dipeptidase IV; gamma-glutamyl hydrolase;

KW NAALADase; antibody; ds.

XX

OS Homo sapiens.

XX

PN WO2003034903-A2.

XX

PD 01-MAY-2003.

XX

PF 23-OCT-2002; 2002WO-US033944.

XX

PR 23-OCT-2001; 2001US-0335215P.

PR 07-MAR-2002; 2002US-0362747P.

PR 20-SEP-2002; 2002US-0412618P.

XX

PA (PSMA-) PSMA DEV CO LLC.

XX

PI Maddon PJ, Donovan GP, Olson WC, Schuelke N, Gardner J, Ma D;

XX

DR WPI; 2003-403281/38.

XX

PT Novel isolated antibody which binds to epitope on prostate specific  
PT membrane antigen, and competitively inhibits binding of second antibody  
PT to its target epitope on the antigen, useful for treating prostate  
PT cancer.

XX

PS Claim 1; Page 209-212; 238pp; English.

XX

CC The invention relates to an antibody or its antigen-binding fragment  
CC which specifically binds to epitope on prostate specific membrane antigen  
CC (PSMA), and competitively inhibits the specific binding of a second  
CC antibody to its target epitope on PSMA. The invention is useful for  
CC diagnosing, treating or preventing PSMA-mediated disease such as prostate



ID AAA27389 standard; cDNA; 817 BP.  
XX  
AC AAA27389;  
XX  
DT 16-AUG-2000 (first entry)  
XX  
DE Human IGFAM-9 immunoglobulin coding sequence.  
XX  
KW Human; immunoglobulin; IGFAM-9; IGFAM; immune disorder; cancer;  
KW infection; inflammation; haematopoiesis; AIDS; allergy; ss.  
XX  
OS Homo sapiens.  
XX  
FH Key Location/Qualifiers  
FT CDS 11..721  
FT /\*tag= a  
FT /product= "IGFAM-9"  
FT sig\_peptide 11..76  
FT /\*tag= b  
FT mat\_peptide 77..718  
FT /\*tag= c  
XX  
PN WO200029583-A2.  
XX  
PD 25-MAY-2000.  
XX  
PF 19-NOV-1999; 99WO-US027566.  
XX  
PR 19-NOV-1998; 98US-00195853.  
PR 22-DEC-1998; 98US-0113635P.  
PR 07-APR-1999; 99US-0128194P.  
XX  
PA (INCY-) INCYTE PHARM INC.  
XX  
PI Yue H, Tang YT, Corley NC, Guegler KJ, Gorgone GA, Baughn MR;  
PI Lu DAM, Lal P, Hillman JL, Yang J;  
XX  
DR WPI; 2000-387796/33.  
DR P-PSDE; AAY96297.  
XX  
PT Immunoglobulin superfamily proteins, the agonist and antagonist of the  
PT protein is useful for preventing and treating disorders associated with  
PT altered levels of the protein such as cancer, immune system disorders.  
XX  
PS Claim 9; Page 99; 105pp; English.  
XX  
CC The present sequence is the human immunoglobulin superfamily protein  
CC IGFAM-9 gene, which was isolated from a cDNA library of breast tumour  
CC tissue. It is expressed in reproductive, gastrointestinal and immune and  
CC haematopoietic tissue, where cancer and inflammation are common. The  
CC gene, protein, its antibodies, agonists and antagonists are suitable for  
CC diagnosing and treating many diseases, including cancer, immune system  
CC disorders (such as inflammation, AIDS, allergies, anaemia,  
CC arteriosclerosis, asthma, atherosclerosis, cholecystitis, Crohn's  
CC disease, diabetes mellitus, emphysema, Graves' disease, hepatitis,  
CC multiple sclerosis, psoriasis, rheumatoid arthritis, scleroderma,  
CC systemic lupus erythematosus and ulcerative colitis), complications of



KW monoclonal antibody; allergy; rheumatoid arthritis; diabetes mellitus;  
 KW multiple sclerosis; autoimmune thyroiditis; psoriasis; hepatitis;  
 KW allergic contact-type dermatitis; chronic inflammatory dermatosis;  
 KW systemic lupus erythematosus; autoimmune disorder; inflammation; ss;  
 KW graft versus host reaction; immune rejection; intestinal immunity;  
 KW ulcerative colitis; pneumonia; nephritis; vasculitis; pancreatitis.  
 XX  
 OS Homo sapiens.  
 XX  
 PN WO200187981-A2.  
 XX  
 PD 22-NOV-2001.  
 XX  
 PF 15-MAY-2001; 2001WO-JP004035.  
 XX  
 PR 18-MAY-2000; 2000JP-00147116.  
 PR 30-MAR-2001; 2001JP-00099508.  
 XX  
 PA (NISB ) JAPAN TOBACCO INC.  
 XX  
 PI Tsuji T, Tezuka K, Hori N;  
 XX  
 DR WPI; 2002-075313/10.  
 DR P-PSDB; AAU74297.  
 XX  
 PT New human monoclonal antibody that binds to activation inducible  
 PT lymphocyte immunomodulatory molecule, useful for treating rheumatoid  
 PT arthritis, multiple sclerosis and inflammation.  
 XX  
 PS Claim 45; Page 267-270; 300pp; English.  
 XX  
 CC The invention relates to a novel human antibody (I), preferably a human  
 CC monoclonal antibody which binds to an activation inducible lymphocyte  
 CC immunomodulatory molecule (AILIM). (I) is useful for modulating signal  
 CC transduction into a cell mediated by AILIM, for modulating proliferation  
 CC of AILIM-expressing cells, for modulating production of a cytokine from  
 CC AILIM-expressing cells, and for inducing antibody-dependent cytotoxicity  
 CC against AILIM-expressing cells and/or immune cytolysis or apoptosis of  
 CC AILIM-expressing cells. (I) is useful for treating, preventing or  
 CC prophylaxis of delayed type allergy. (I) is useful for treating and  
 CC preventing various diseases associated with AILIM-mediated costimulatory  
 CC transduction, and for inhibiting the onset and/or advancement of the  
 CC diseases. (I) is useful for suppression, prevention and/or treatment of  
 CC rheumatoid arthritis, multiple sclerosis, autoimmune thyroiditis,  
 CC allergic contact-type dermatitis, chronic inflammatory dermatosis,  
 CC systemic lupus erythematosus, insulin-dependent diabetes mellitus,  
 CC psoriasis, autoimmune or allergic disorders, inflammation, graft versus  
 CC host reaction, graft versus host disease, immune rejection, disorders  
 CC caused by abnormal intestinal immunity, specifically inflammatory  
 CC intestinal disorders such as ulcerative colitis, pneumonia, hepatitis,  
 CC nephritis, vasculitis, and pancreatitis. (I) induces no serious  
 CC immunorejection due to antigenicity to human, i.e., human anti-mouse  
 CC antigenicity (HAMA) in a host. AAS99444-AAS99477 represent anti-human  
 CC AILIM monoclonal antibody coding sequences and PCR primers of the  
 CC invention  
 XX  
 SQ Sequence 974 BP; 246 A; 282 C; 232 G; 214 T; 0 U; 0 Other;

Query Match 86.8%; Score 381.2; DB 6; Length 974;  
Best Local Similarity 92.4%; Pred. No. 1e-108;  
Matches 401; Conservative 0; Mismatches 33; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCTCCCGCTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCAGGTGCC	60
Db	39	ATGGACATGAGGGTCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCAGGTTC	98
Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Db	99	AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGA	158
Qy	121	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Db	159	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGGTTGTTAGCCTGGTATCAGCAG	218
Qy	181	AAACCAGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Db	219	AAACCAGGGAAAGCCCCTAAACTCCTGATCTATGTTGCATCCAGTTTGCAAAGTGGGGTC	278
Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Db	279	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	338
Qy	301	CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT	360
Db	339	CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAACAGTTTCCCGTGGACGTTT	398
Qy	361	GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC	420
Db	399	GGCCAAGGGACCAAGGTGGAAATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC	458
Qy	421	CCGCCATCTGATGA	434
Db	459	CCGCCATCTGATGA	472

```

RESULT 11
AAT78825
ID    AAT78825 standard; DNA; 3819 BP.
XX
AC    AAT78825;
XX
DT    23-JAN-1998   (first entry)
XX
DE    Kappa light chain plasmid pLC6G5.
XX
KW    Ig; affinity constant; human; antigen; hybridoma; B cell; transgene;
KW    transgenic; mouse; CD4; antibody; autoimmune; inflammatory;
KW    transplant rejection; immunoglobulin; ss.
XX
OS    Synthetic.
OS    Homo sapiens.
XX
PN    W09713852-A1.
XX

```



```

PD 17-APR-1997.
XX
XX
PF 10-OCT-1996; 96WO-US016433.
XX
PR 10-OCT-1995; 95US-00544404.
XX
PA (GENP-) GENPHARM INT INC.
XX
PI Lonberg N, Kay RM;
XX
DR WPI; 1997-235888/21.
XX
PT Novel anti-CD4 antibody produced by transgenic mice - used in the
PT treatment of auto-immune disease etc.
XX
PS Example 42; Page 266-268; 396pp; English.
XX
CC A novel composition has been developed which comprises an immunoglobulin
CC (Ig) having an affinity constant (Ka) of at least 2 multiply 1000000000 M
CC -1 for binding to a predetermined human antigen. The present sequence
CC represents the kappa light chain plasmid pLC6G5 which includes the kappa
CC constant region and polyadenylation site. Anti- CD4 antibodies may be
CC used in therapeutic and diagnostic applications, especially for the
CC treatment of human diseases. These antibodies reduce activity of CD4
CC cells and reduce undesirable autoimmune reactions, inflammatory response
CC and transplant rejection. Transgenic animals are capable of producing
CC heterologous antibodies of multiple isotypes by undergoing isotype
CC switching. These animals produce a first Ig type that is necessary for
CC antigen-stimulated B-cell maturation and can switch to encode and produce
CC one or more subsequent heterologous isotypes
XX
SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

Query Match 86.1%; Score 377.8; DB 2; Length 3819;
Best Local Similarity 92.5%; Pred. No. 2.1e-107;
Matches 397; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

Qy 6 CATGGAGTTCCTCGTCTCTGTTCCAGGTGCCAGATG 65
   |||| | |||| | ||||| || ||||| ||||| |||||
Db 2445 CATGATGGTCCAGCTCAGCTCCTCGGTCTCTGCTGCTCTGGTTCCAGGTTCAGATG 2504

Qy 66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 2505 CGACATCCAGATGACCCAGTCTCCATCTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 2564

Qy 126 CATCACTTGTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 2565 CATCACTTGTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 2624

Qy 186 AGAGAAAGCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245
   || ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 2625 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 2684

Qy 246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACCTCACCATCAGCAGCCTGCAGCC 305
   ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db 2685 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACCTCACCATCAGCAGCCTGCAGCC 274

```





QY 426 ATCTGATGA 434  
|||  
Db 2865 ATCTGATGA 2873

RESULT 13

AAZ22020

ID AAZ22020 standard; DNA; 3819 BP.

XX

AC AAZ22020;

XX

DT 24-NOV-1999 (first entry)

XX

DE Nucleotide sequence of plasmid pLC6G5.

XX

KW Transgenic animal; heterologous antibody; hybridoma; B cell;

KW transgenic mouse; human heavy chain transgene; digoxin;

KW human light chain transgene; immortalized cell; immunoglobulin;

KW Shinga-like toxin; autoimmune disease; cancer; infectious disease;

KW transplant rejection; blood disorder; coagulation disorder; ss.

XX

OS Synthetic.

XX

PN WO9945962-A1.

XX

PD 16-SEP-1999.

XX

PF 12-MAR-1999; 99WO-US005535.

XX

PR 13-MAR-1998; 98US-00042353.

XX

PA (GENP-) GENPHARM INT INC.

XX

PI Lonberg N, Fishwild DM, Ball WJ;

XX

DR WPI; 1999-551219/46.

XX

PT Novel transgenic non-human animals used to produce heterologous

PT antibodies.

XX

PS Example 42; Page 318-320; 484pp; English.

XX

CC The specification describes transgenic animals that are capable of  
CC producing a heterologous antibody. The antibodies are isolated from a  
CC hybridoma, comprising B cells, that is obtained from a transgenic mouse  
CC having a genome comprising a human heavy chain transgene and a human  
CC light chain transgene. The B cells are fused to immortalized cells  
CC suitable for generating a hybridoma, which produces a detectable amount  
CC of an immunoglobulin that specifically binds digoxin or Shinga-like  
CC toxin. B cells from transgenic animals can be used to generate hybridomas  
CC expressing monoclonal high affinity human sequence antibodies. Antibodies  
CC produced from the transgenic animals of the invention can be used to  
CC treat human diseases, e.g. autoimmune diseases, cancer, infectious  
CC disease, transplant rejection, blood disorders such as coagulation  
CC disorders and other diseases. The present sequence is used in the course  
CC of the invention

XX

SQ Sequence 3819 BP; 947 A; 1015 C; 912 G; 945 T; 0 U; 0 Other;

Query Match 86.1%; Score 377.8; DB 2; Length 3819;

Best Local Similarity 92.5%; Pred. No. 2.1e-107;

Matches 397; Conservative 0; Mismatches 32; Indels 0; Gaps 0;

```
Qy      6 CATGGAGTTCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCCAGATG 65
      |||| | |||| | ||||| || ||||| ||||| ||||| ||||| ||||| |||||
Db    2445 CATGATGGTCCCAGCTCAGCTCCTCGGTCTCCTGCTGCTCTGGTTCACAGGTCCAGATG 2504

Qy     66 TGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGAGTCAC 125
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2505 CGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGCATCTGTAGGAGACAGAGTCAC 2564

Qy    126 CATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAGAAACC 185
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2565 CATCACTTGTCTGGGCGAGTCAGGATATTAGCAGCTGGTTAGCCTGGTATCAGCATAAACC 2624

Qy    186 AGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTCCCATC 245
      || ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2625 AGGTAAAGCACCTAAGCTCCTGATCTATGCTGCATCCAGTTTGCAAAGTGGTGTCCCATC 2684

Qy    246 AAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 305
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2685 AAGGTTTCAGCGGAAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTGCAGCC 2744

Qy    306 TGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTTGGCCA 365
      ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2745 TGAAGATTTTGCAACTTATTGTCAACAGGCTAATAGTTTCCCGTACACTTTTGGTCA 2804

Qy    366 GGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 425
      ||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| ||||| |||||
Db    2805 GGGAACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTCCCGCC 2864

Qy    426 ATCTGATGA 434
      ||||| |||
Db    2865 ATCTGATGA 2873
```

#### RESULT 14

AAH41157

ID AAH41157 standard; DNA; 438 BP.

XX

AC AAH41157;

XX

DT 22-AUG-2001 (first entry)

XX

DE Human coding sequence SEQ ID 11.

XX

KW Human; antiarthritic; cardiant; monoclonal antibody; keloid; arthritis;

KW Tumour Growth Factor-beta II receptor; TGF-beta II receptor; atopy;

KW signal transduction inhibition; tissue fibrosis; atherosclerosis; ds.

XX

OS Homo sapiens.

XX

PN WO200136642-A1.





CC (lipopolysaccharide) and IFNgamma (interferon gamma); acting on dendritic  
CC cells to activate maturity of the dendritic cells with high G28-5  
CC antibody; and activating CD95 expression with high G28-5 antibody against  
CC B cell line. Such antibodies or functional fragments can be used as  
CC immunoactivators, anti-tumour agents, immunosuppressants, and as remedies  
CC for autoimmune diseases, allergy or coagulation factor VIII inhibitors  
CC syndrome. This polynucleotide sequence represents a coding DNA sequence  
CC relating to the anti-CD40 monoclonal antibody of the invention

XX

SQ Sequence 728 BP; 183 A; 201 C; 195 G; 149 T; 0 U; 0 Other;

Query Match 85.7%; Score 376.4; DB 8; Length 728;  
Best Local Similarity 91.7%; Pred. No. 2.9e-107;  
Matches 398; Conservative 0; Mismatches 36; Indels 0; Gaps 0;

```
Qy      1 ATGGACATGGAGTTCCCCGTTTCAGCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC 60
      |||
Db      59 ATGGACATGAGGGTCCCCGCTCAGCTCCTGGGGCTCCTGCTGCTCTGGTTCCCAGGTTC 118

Qy      61 AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA 120
      |||
Db     119 AGATGCGACATCCAGATGACCCAGTCTCCATCTTCCGTGTCTGGATCTGTAGGAGACAGA 178

Qy     121 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 180
      |||
Db     179 GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG 238

Qy     181 AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC 240
      |||
Db     239 AAACCAGGGAAAGCCCCCTAAGTCCCTGATCTATGCTGGATCCAGTTTGCAAAGTGGGGTC 298

Qy     241 CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 300
      |||
Db     299 CCATCAAGGTTTCAGCGGCAGTGGATTTGGGACAGATTTCACTCTCACCATCAGCAGCCTG 358

Qy     301 CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT 360
      |||
Db     359 CAGCCTGAAGATTTTGCAACTTACTATTGTCAACAGGCTAGCAGTTTCCCTCGGACATTC 418

Qy     361 GGCCAGGGGACCAAGCTGGAGATCAAACGAACTGTGGCTGCACCATCTGTCTTCATCTTC 420
      |||
Db     419 GGCCAAGGGACCAAGGTGGAGATCAAACGTACGGTGGCTGCACCATCTGTCTTCATCTTC 478

Qy     421 CCGCCATCTGATGA 434
      |||
Db     479 CCGCCATCTGATGA 492
```

Search completed: December 2, 2004, 13:06:00  
Job time : 341.909 secs

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OM nucleic - nucleic search, using sw model



Run on: December 2, 2004, 12:19:03 ; Search time 64.118 Seconds  
 (without alignments)  
 4866.596 Million cell updates/sec

Title: US-08-728-463B-208  
 Perfect score: 439  
 Sequence: 1 ATGGACATGGAGTTCCCCGT.....CCCGCCATCTGATGAAGCTT 439

Scoring table: IDENTITY\_NUC  
 Gapop 10.0 ; Gapext 1.0

Searched: 824507 seqs, 355394441 residues

Total number of hits satisfying chosen parameters: 1649014

Minimum DB seq length: 0  
 Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
 Maximum Match 100%  
 Listing first 45 summaries

Database : Issued\_Patents\_NA:\*  
 1: /cgn2\_6/ptodata/1/ina/5A\_COMB.seq:\*  
 2: /cgn2\_6/ptodata/1/ina/5B\_COMB.seq:\*  
 3: /cgn2\_6/ptodata/1/ina/6A\_COMB.seq:\*  
 4: /cgn2\_6/ptodata/1/ina/6B\_COMB.seq:\*  
 5: /cgn2\_6/ptodata/1/ina/PCTUS\_COMB.seq:\*  
 6: /cgn2\_6/ptodata/1/ina/backfiles1.seq:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	% Match	Query Length	ID	Description
1	439	100.0	439	3 US-09-042-353-360	Sequence 360, App
2	439	100.0	439	3 US-08-758-417A-208	Sequence 208, App
3	377.8	86.1	3819	3 US-09-042-353-393	Sequence 393, App
4	377.8	86.1	3819	3 US-08-758-417A-243	Sequence 243, App
5	368.4	83.9	714	4 US-09-472-087-62	Sequence 62, Appl
6	365.2	83.2	1066	1 US-08-157-101A-4	Sequence 4, Appli
7	357.8	81.5	420	3 US-09-042-353-420	Sequence 420, App
8	357.8	81.5	420	3 US-08-758-417A-220	Sequence 220, App
9	351.2	80.0	388	3 US-09-042-353-358	Sequence 358, App
10	351.2	80.0	388	3 US-08-758-417A-206	Sequence 206, App
11	350.8	79.9	19040	4 US-09-343-485A-3	Sequence 3, Appli
12	333.6	76.0	705	1 US-08-488-376-16	Sequence 16, Appl
13	333.6	76.0	705	2 US-08-634-223-16	Sequence 16, Appl
14	333.6	76.0	705	2 US-08-634-224-16	Sequence 16, Appl
15	333.6	76.0	705	2 US-08-634-400-16	Sequence 16, Appl
16	333.6	76.0	705	2 US-08-635-878-16	Sequence 16, Appl
17	333.6	76.0	705	2 US-08-770-057-16	Sequence 16, Appl
18	333.6	76.0	705	3 US-09-335-697B-16	Sequence 16, Appl

19.	333.6	76.0	705	4	US-09-335-697B-16	Sequence 16, Appl
20	333.6	76.0	705	4	US-09-740-002-16	Sequence 16, Appl
21	320	72.9	990	4	US-09-800-729-79	Sequence 79, Appl
22	318.8	72.6	708	1	US-08-488-376-18	Sequence 18, Appl
23	318.8	72.6	708	2	US-08-634-223-18	Sequence 18, Appl
24	318.8	72.6	708	2	US-08-634-224-18	Sequence 18, Appl
25	318.8	72.6	708	2	US-08-634-400-18	Sequence 18, Appl
26	318.8	72.6	708	2	US-08-635-878-18	Sequence 18, Appl
27	318.8	72.6	708	2	US-08-770-057-18	Sequence 18, Appl
28	318.8	72.6	708	3	US-09-335-697B-18	Sequence 18, Appl
29	318.8	72.6	708	4	US-09-335-697B-18	Sequence 18, Appl
30	318.8	72.6	708	4	US-09-740-002-18	Sequence 18, Appl
31	314	71.5	941	4	US-09-800-729-81	Sequence 81, Appl
32	313.6	71.4	384	1	US-08-259-372A-13	Sequence 13, Appl
33	313.6	71.4	384	1	US-08-468-671-13	Sequence 13, Appl
34	313.4	71.4	387	1	US-08-217-918-1	Sequence 1, Appli
35	313.2	71.3	390	2	US-08-646-367-2	Sequence 2, Appli
36	308.8	70.3	642	1	US-08-157-101A-8	Sequence 8, Appli
37	307	69.9	387	3	US-08-803-085-3	Sequence 3, Appli
38	300.8	68.5	672	4	US-09-456-090A-47	Sequence 47, Appl
39	300.8	68.5	672	4	US-09-453-234-47	Sequence 47, Appl
40	297.4	67.7	847	1	US-08-053-131-184	Sequence 184, App
41	297.4	67.7	847	1	US-08-096-762-184	Sequence 184, App
42	297.4	67.7	847	3	US-09-042-353-47	Sequence 47, Appl
43	297.4	67.7	847	3	US-08-758-417A-312	Sequence 312, App
c 44	294.4	67.1	371	4	US-09-389-681-187	Sequence 187, App
c 45	294.4	67.1	371	4	US-09-620-405B-187	Sequence 187, App

#### ALIGNMENTS

#### RESULT 1

US-09-042-353-360

; Sequence 360, Application US/09042353

; Patent No. 6255458

; GENERAL INFORMATION:

; APPLICANT: Lonberg, Nils

; APPLICANT: Kay, Robert M.

; TITLE OF INVENTION: Transgenic No. 6255458-Human Animals for

; TITLE OF INVENTION: Producing Heterologous Antibodies

; NUMBER OF SEQUENCES: 421

; CORRESPONDENCE ADDRESS:

; ADDRESSEE: Townsend and Townsend and Crew LLP

; STREET: Two Embarcadero Center, Eighth Floor

; CITY: San Francisco

; STATE: California

; COUNTRY: USA

; ZIP: 94111-3834

; COMPUTER READABLE FORM:

; MEDIUM TYPE: Floppy disk

; COMPUTER: IBM PC compatible

; OPERATING SYSTEM: PC-DOS/MS-DOS

; SOFTWARE: PatentIn Release #1.0, Version #1.30

; CURRENT APPLICATION DATA:

; APPLICATION NUMBER: US/09/042,353

; FILING DATE: 13-MAR-1998

; CLASSIFICATION: 800  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/810,279  
; FILING DATE: 17-DEC-1991  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/853,408  
; FILING DATE: 18-MAR-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/904,068  
; FILING DATE: 23-JUN-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 07/990,860  
; FILING DATE: 16-DEC-1992  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/053,131  
; FILING DATE: 26-APR-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/096,762  
; FILING DATE: 22-JUL-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/155,301  
; FILING DATE: 18-NOV-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/161,739  
; FILING DATE: 03-DEC-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/165,699  
; FILING DATE: 10-DEC-1993  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/209,741  
; FILING DATE: 09-MAR-1994  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/352,322  
; FILING DATE: 07-DEC-1994  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/544,404  
; FILING DATE: 10-OCT-1995  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/728,463  
; FILING DATE: 10-OCT-1996  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: WO PCT/US96/16433  
; FILING DATE: 10-OCT-1996  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: US 08/758,417  
; FILING DATE: 02-DEC-1996  
; PRIOR APPLICATION DATA:  
; APPLICATION NUMBER: WO PCT/US97/21803  
; FILING DATE: 01-DEC-1997  
; ATTORNEY/AGENT INFORMATION:  
; NAME: Apple, Randolph T.  
; REGISTRATION NUMBER: 36,429  
; REFERENCE/DOCKET NUMBER: 014643-009040US  
; TELECOMMUNICATION INFORMATION:  
; TELEPHONE: (415) 576-0200  
; TELEFAX: (415) 576-0300  
; INFORMATION FOR SEQ ID NO: 360:

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; SEQUENCE CHARACTERISTICS:
;     LENGTH: 439 base pairs
;     TYPE: nucleic acid
;     STRANDEDNESS: single
;     TOPOLOGY: linear
;     MOLECULE TYPE: DNA
US-09-042-353-360

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Query Match 100.0%; Score 439; DB 3; Length 439;  
Best Local Similarity 100.0%; Pred. No. 1.1e-133;  
Matches 439; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	ATGGACATGGAGTTCCCCGTTTCAGTCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Db	1	ATGGACATGGAGTTCCCCGTTTCAGTCTCCTGGGGCTCCTGCTGCTCTGTTTCCCAGGTGCC	60
Qy	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Db	61	AGATGTGACATCCAGATGACCCAGTCTCCATCCTCACTGTCTGCATCTGTAGGAGACAGA	120
Qy	121	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Db	121	GTCACCATCACTTGTCTGGGCGAGTCAGGGTATTAGCAGCTGGTTAGCCTGGTATCAGCAG	180
Qy	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Db	181	AAACCAGAGAAAGCCCCCTAAGTCCCTGATCTATTCTGCATCCAGTTTGCAAAGTGGGGTC	240
Qy	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Db	241	CCATCAAGGTTTCAGCGGCAGTGGATCTGGGACAGATTTCACTCTCACCATCAGCAGCCTG	300
Qy	301	CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT	360
Db	301	CAGCCTGAAGATTTTGCAACTTATTACTGCCAACAGTATGATAGTTACCCGTACACTTTT	360
Qy	361	GGCCAGGGGACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTCATCTTC	420
Db	361	GGCCAGGGGACCAAGCTGGAGATCAAACGAAGTGTGGCTGCACCATCTGTCTTCATCTTC	420
Qy	421	CCGCCATCTGATGAAGCTT	439
Db	421	CCGCCATCTGATGAAGCTT	439

## RESULT 2

US-08-758-417A-208

; Sequence 208, Application US/08758417A

; Patent No. 6300129

## ; GENERAL INFORMATION:

APPLICANT: Lonberg, Nils

Kay, Robert M.

TITLE OF INVENTION: Transgenic No. 6300129-Human Animals for

## Producing Heterologous Antibodies

NUMBER OF SEQUENCES: 417

CORRESPONDENCE ADDRESS:

ADDRESSEE: Townsend and Townsend and Crew LLP